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NORTHERN RHODESIA.

REPORT FOR 1924–25.

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No. 1292.

NORTHERN RHODESIA.

ANNUAL REPORT, 1924–1925.

I. Geographical and Historical.

The territory known as the Protectorate of Northern Rhodesia lies between Latitudes 22° E. and 33·35° E. and between Longitudes 8·15° S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the South by the Southern Rhodesia and the mandated territory of South-West Africa; comprising in all an area which is computed to be about 291,000 square miles. The River Zambesi forms the greater part of the southern boundary; its two main northern tributaries are the Rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is higher.

Very little is known of the history of the native population until quite recent years. It is conjectured that the various movements of the Bantu people from the north, starting perhaps 2,500 years ago, crossed and recrossed what is now Northern Rhodesia. Whether these movements, in their effect on this portion of Central Africa, were migratory or predatory, whether they found any aboriginal inhabitants or traversed an uninhabitated forest, whether they resulted in any form of settlement or merely passed to other countries, is alike unknown. All that can be said is that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambesi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Inroads from the north were frequent as well as from the south, whence came the Angoni, a branch of the warlike Zulu, in the middle of the 19th century. At the present time the most important tribes are the Awemba (98,000), the Achewa (66,000), the Asenga (60,000), the Angoni (57,000) and the Awisa (32,000) in the eastern districts; and the Batoka (96,000), the Barotse (44,000) and the Bakaonde (25,000) in the western districts.

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The earliest recorded information about Northern Rhodesia is contained in the diaries of the Portuguese Governor of Sena, Dr. Lacerda, and of his chaplain, Pinto, who led an expedition from Tete in 1798 into Kasembe's country, close to the eastern shore of Lake Mweru. Little more is known of the history of the country until the arrival of Dr. Livingstone in 1855, when he visited the Victoria Falls and travelled through Barotseland. But in the interval Arab inroads from the north-east had occurred, and the slave trade which they established continued unchecked until 1893. This baleful influence had gradually spread from the shores of Lakes Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in that year the slave trade in this territory received its first serious check. In each succeeding year more Arab settlements on the Lake shores were destroyed; Sir Harry Johnston defeated the Arab Chief Mlozo at Karonga in 1894; and the last caravan of slaves, which was intercepted on its way to the East Coast, was released at Fort Jameson in 1898. Bands of slave traders were encountered on the north-west boundary and skirmishes with them took place as late as 1900; but with the final establishment of the Administration of the British South Africa Company the slavers quickly disappeared from the country.

Previous to 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland–North-Western Rhodesia Order in Council placed the administration of the western portion of the country by the Company on a firm basis; and this was closely followed by the North-Eastern Rhodesia Order in Council of 1900 with similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924, when, in terms of a settlement arrived at between the Crown and the Company, the administration of the territory was assumed by the Crown and the first Governor was appointed on 1st April, 1924.

II. Climate.

There are considerable climatic differences between various parts of the country. The Zambesi, the Luangwa and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November, before the rains break, when the mean maximum is about 97° in the Zambesi valley stations and 85° at plateau stations. The mean maximum for the seven months of the hot season (September to March) is approximately 87° with a mean minimum of 68°, while the corresponding figures for the seven months of the cold season (April to August) are 80° and 53°. During the year under review, the highest mean maximum recorded at Livingstone for any one month was 93·5° in October, and the lowest mean minimum for any one month was 61·5° in July; at the same station the absolute maximum for the year was 102·1° recorded in September, and the absolute minimum was 38·0° recorded in July. The highest temperature recorded in the Territory was 116° at Mankoya and the lowest was 29° at Sesheke.

The rainy season usually commences in November and lasts until April, after which month rain is only rarely experienced, and then in negligible quantities. The season 1923–24 was remarkable for the scarcity of rain. The season 1924–25 exhibited equally unusual characteristics in the contrary direction, the rainfall being of exceptional volume all over the country. At Livingstone, where the normal rainfall is about 30 inches, as much as 54 inches of rain fell between October, 1924, and April, 1925; and similar conditions obtained throughout most of the Territory.

III. Vital Statistics.

There has never been a complete census of all persons in the Protectorate, but the figures relating to the European population are known and a fairly accurate estimate of the native population may be obtained from the Native Tax returns. By this means it is computed that the native population numbers rather more than 1,100,000. No figures to show the birth and death rates among natives, or their immigration and emigration, are available.

The European population on 1st April, 1924, numbered 4,182, of whom 1,919 were adult males and 1,016 adult females. During the year, 107 births and 40 deaths occurred.

The Asiatic population is estimated to be approximately 60 and the number of "coloured" persons about 150.

The total of immigrants, exclusive of natives, was 438, of whom 407 were British subjects, 15 were American, and 16 belonged to other nationalities. No emigration figures are available.

IV. General Events of the Year.

The outstanding administrative event was the change of Government. Previous to 1st April, 1924, the Territory had been under the administration of the British South Africa Company, but coincident with the grant of responsible Government to Southern Rhodesia in October, 1923, a settlement of various claims in connection with Northern Rhodesia was arrived at between the Crown and the Company with a view to the assumption by the Crown of full authority over that Territory. By the Northern Rhodesia Order in Council, 1924, the office of Governor was created, an Executive Council constituted, and provision made for a Legislative Council. Mr. H. J. Stanley, C.M.G. (now Sir Herbert Stanley, K.C.M.G.) took the oath as the first Governor and Commander-in-Chief of Northern Rhodesia on 1st April, 1924. The first meeting of the Legislative Council took place on 23rd May.

The members of the East Africa Commission arrived at Livingstone on 5th September. Unfortunately, owing to pressure of time, they were unable to proceed further up-country, and left Livingstone for Beira on 8th September.

A party of delegates to the meeting of the Empire Parliamentary Union, which had taken place in South Africa, visited Livingstone on 7th October. It was again unfortunate that the General Election in Great Britain had compelled the return of almost all the delegates of the English Parliament, including Mr. J. H. Thomas, and Northern Rhodesia was therefore robbed of the opportunity of welcoming for the first time a Secretary of State for the Colonies.

V. Legislation.

The Northern Rhodesia Order in Council, 1924, and the Northern Rhodesia (Legislative Council) Order in Council, 1924, were promulgated on 1st April, 1924, together with the Commission appointing the Governor, dated 27th February, 1924, and the Royal Instructions, dated 26th February, 1924.

Sixteen Ordinances were passed by the Legislative Council, of which the more important were the Imperial Acts Extension, the Patents (Amendment), the Cotton Regulation, the Public Servants' Agreement, and the Matrimonial Causes Ordinances, 1924.

VI. Finance and Banks.

The Revenue for the year ending 31st March, 1925, amounted to £309,795, being an excess of £46,330 over the estimate and an increase of £30,867 on the revenue of the previous year. This excess was due to the receipt beyond the estimated amounts of £17,721 by the Customs Department, £6,448 of Native Tax, £4,556 by Sale of Lands, and of an aggregate of £17,605 under other heads.

The Expenditure for the year was £340,327, showing a saving of £23,906 on the sum authorised, but an increase of £16,111 on the expenditure of the preceding year. Savings on the estimated amounts were effected to the sums of £8,204 by the District Administration, £3,177 by the Northern Rhodesia Police, £2,117 by the Medical Department, and an aggregate of £10,408 in other Departments. The change from the system of commercial accounting to the cash system laid down by Colonial Regulations was partly responsible for this saving in expenditure being shown.

The following figures give the actual receipts and expenditure for the year :—

REVENUE.

			£	s.	d.
Head	I.	Customs	72,720	16	8
„	II.	Licences, Excise and Internal Revenue.	162,395	11	7
„	III.	Fees of Court, etc.	27,914	12	10
„	IV.	Post Office	18,121	4	11
„	V.	Rent of Government Property ...	11,486	2	6
„	VI.	Interest	715	4	4
„	VII.	Miscellaneous	3,635	3	10
„	VIII.	Land Sales	12,805	18	11
		Total Revenue	£309,794	15	7

EXPENDITURE.

		£	s.	d.
1.	The Governor's Office	5,970	11	0
2.	Secretariat	7,682	7	4
3.	European Education	7,722	1	4
4.	Printing and Stationery	4,279	11	11
5.	Department of Native Affairs	—		
6.	District Administration	87,585	1	4
7.	Treasury	9,436	10	1
8.	Commissioner of Taxes	2,319	18	10
9.	Customs	6,392	6	11
10.	Posts and Telegraphs	21,110	19	4
11.	Transport and Supply	3,092	4	9
12.	Lands Department	1,930	10	3
13.	Survey Department	6,745	14	5
14.	Audit Office	1,592	3	3
15.	Judicial, Legal and Prisons Department ...	19,024	2	5
16.	Northern Rhodesia Police	47,712	19	2
17.	Medical Department...	28,745	10	1
18.	Veterinary Department	14,723	5	9
19.	Agricultural Department	3,433	16	1
20.	Mines and Public Works Department ...	5,721	15	7
21.	Public Works Recurrent	13,130	6	8
22.	Public Works Extraordinary	5,202	7	8
23.	Percentage of Tax payable to Barotse Trust Fund.	5,423	5	6
24.	Miscellaneous Services	7,386	16	3
25.	Pensions and Gratuities	14,017	11	2
	Northern Rhodesia Volunteer Force ...	597	8	7
	Reparations Payments	9,347	8	8
	Total Expenditure ...	£340,326	14	4

The deficit for the year, therefore amounted to £30,532, as against an estimated deficit of £100,768. The following statement gives the financial position :—

	£	£
(*a*) Excess of Assets over Liabilities, 1st April, 1924.	24,950	
Grant-in-aid	138,000	
Excess of Expenditure over Revenue (as above).		30,532
Excess of Assets over Liabilities, 31st March, 1925.		132,418
	£162,950	£162,950

(*a*) This figure was arrived at thus :—

	£		£
Unallotted Stores ...	31,664	Creditor Balances ...	21,198
Debtor Balances ...	14,484	Balance	24,950
	£46,148		£46,148

The Standard Bank of South Africa has one branch at Livingstone and another at Lusaka. The National Bank of South Africa has a branch at Broken Hill and an agency at Bwana M'Kubwa. There is no local paper currency. English coinage is in use and the greater part of the notes in circulation are of the Southern Rhodesian issue of the two banks mentioned above. The coins and notes of the Union of South Africa are also current at par.

VII. Customs and Trade.

Northern Rhodesia is in the curious position of being divided into two Customs Zones. The Northern Zone, which is known as the Congo Basin Zone, is governed by the conditions of the Berlin Act of 1885. Goods imported into this Zone are, therefore, not subject to the terms of the Agreement with the Union of South Africa, though the duties imposed are in almost all instances similar to those imposed in the Southern Zone. The latter is known as the Zambesi Basin Zone and is subject to Customs Agreements with the Union of South Africa and Southern Rhodesia, and with Basutoland, the Bechuanaland Protectorate and Swaziland. A new Customs Agreement with the Union of South Africa and Southern Rhodesia was negotiated in October, 1924, on the lines of the previous agreement, but with certain modifications as to the control of traffic in " scrub " cattle and " scrap " tobacco. Under the terms of the new agreement, Northern Rhodesia receives 12 per cent. *ad valorem* on removals from the Union of South Africa of imported goods, and

6 per cent. on removals of South African manufactured goods; unmanufactured produce of South Africa is not subject to duty. The Union of South Africa charges the actual duty at Union rates due on removals from Northern Rhodesia of imported goods but allows entry to Northern Rhodesia produce free of duty. The minimum sum payable by the Union of South Africa to Northern Rhodesia is £12,500 per annum.

The following table shows the value of the imports and exports for the year 1924 from and to other countries :—

	Imports.	*Exports.*
	£	£
Union of South Africa ...	63,228	110,222
Southern Rhodesia	143,842	36,406
United Kingdom	306,354	70,636
Rest of the British Empire...	22,392	23,045
Foreign Countries	126,826	213,745
	£662,642	£454,054

The gross Customs and Excise revenue for the year amounted to £76,359, being £1,359 more than had been estimated, and £13,299 in excess of the gross revenue for 1923.

The principal articles imported were :—

	£
Foodstuffs	85,398
Beverages	29,843
Cigarettes	14,030
Apparel	53,591
Footwear	10,173
Other Textiles	136,066
Machinery and Metals	157,089
Coal or Coke	27,561
Bioscope Films	24,883
Petrol	6,493

The principal articles of export were :—

	£
Cattle	53,870
Maize—Grain	27,914
Maize—Meal	22,169
Tobacco	90,788
Lead (Pig)	104,858
Vanadium	29,452
Copper (Bar and Ingot)	7,253
Gold	6,712
Ivory	9,791
Wood	9,371
Curios	1,208

VIII. Land, Agriculture and Livestock.

Of the total approximate acreage in the Territory of 184,288,000 acres, the North Charterland Exploration Company holds, subject to the due assignment of native reserves, a concession over 6,400,000 acres, the British South Africa Company own three freehold areas comprising 2,758,400 acres in the Tanganyika District, 2,763,797 acres have been alienated, and at the end of the financial year a further 260,000 acres were in course of alienation for purposes of European settlement. During the year, 51,470 acres were disposed of, realising a sum of £8,243. Of the alienated land the larger portion is used for grazing, but 52,243 acres were under cultivation during the season 1923–24, of which 42,377 acres were put under maize, 3,462 under tobacco, 2,331 under cotton, 1,250 under wheat, 1,046 under fodder, and smaller areas under beans, potatoes, onions and ground-nuts. Figures for the season 1924–25 are not available.

There is an Agricultural and Veterinary experimental station at Chilanga, but the area available there is insufficient and the position not altogether suitable, and it is hoped to be able to remove it to another site, where the work may be continued on a larger scale. Experiments have been made with cotton, maize and wheat; and a variety of fodder crops were grown, which were utilized by the Veterinary Department to test, with some measure of success, a theory that so-called veld-poisoning is in reality a veld-borne and not a contagious or spontaneous disease. These experiments have shown that, under certain conditions of feeding and exercise, imported pedigree bulls can live and thrive, whereas under other conditions the mortality among them is very high.

The climatic conditions during the year were so abnormal that the agricultural community suffered a considerable set-back. The rainfall during the wet season of 1923–24 was so small that much of the Territory could be said to have experienced a drought; whereas the following wet season of 1924–25 produced such excessive rains that all agricultural activities were seriously impeded, the cotton crop was almost entirely destroyed, and the maize crop endangered.

The past two years have witnessed a very large increase in cotton growing, an increase which has been to some extent responsible for the decrease in the acreage planted with maize and wheat. The abnormal climatic conditions in each of these two years imposed a severe handicap upon the cotton-growing industry at its very inception. Despite this, there are grounds for the belief that under normal conditions cotton planters would obtain a good yield per acre of high quality cotton; and, in the meantime, assistance is being given to growers of cotton to tide over the bad times and to encourage them to continue their efforts to establish the industry. In the season 1923–24 the 2,331 acres under cotton produced nearly 190,000 lb. of lint, an average of 81 lb. an acre; in the season 1924–25 approximately 15,000 acres were planted with cotton, but the excessive rainfall caused a great increase in the number of pests, from which the previous year's crop was particularly free, and the crop eventually proved to be almost a complete failure. It is essential that a seed should be found which will be suitable to the peculiar climatic conditions, and an entomologist and a well-equipped laboratory are desirable to investigate the pests which have appeared and other varieties which may appear in the future; without an expert investigation on the spot it may be impossible to avoid or control dangers which may render worthless any amount of expenditure of money or labour on ginneries and extensive planting. It is hoped to be able to provide for this need in the near future. Two ginneries have been erected, one at Pemba, and a larger one, operated by the local planters on a co-operative basis, at Mazabuka. Grading is at present done by the Union Government grader but, when the industry is properly established, it will probably be necessary for this Government to employ its own grader. An Ordinance was passed by the Legislative Council and Regulations issued under it controlling the export and grading of lint, so as to assist the production of high-quality cotton and protect buyers against false packing, etc.

The maize crop of the 1923-24 season gave a reduced yield owing to the smallness of the rainfall. A total of 42,377 acres was planted, being an increase of 3,897 acres on the previous season; but the yield was only 130,858 bags, being 68,446 bags less than in the 1922–23 season. These figures are for crops grown by Europeans. In addition, considerable quantities of maize are grown by natives, who trade to Europeans such part of their crops as they do not use for food, but it is not possible to make any estimate of the acreage cultivated by natives or of the annual yield.

Tobacco has for some time been the staple crop of farmers in the East Luangwa district of north-eastern Rhodesia, but recently attempts to grow it on a large scale have been made in other parts of the Territory. Unfortunately, as another result of the drought of 1923–24 the crop that season was not a success and a much smaller area was planted in 1924–25.

During the past few years an increase in the acreage under wheat had been noted, but, owing to the greater interest taken in cotton, the total decreased from 1,965 in 1922–23 to 1,152 acres in 1923–24.

Large areas of the Territory are made impossible for cattle by the presence of tsetse fly. In the Barotse district it is estimated that there are 120,000 domestic animals. In the rest of the Territory there are approximately 82,000 head of cattle, the greater portion of which are unimproved, 166 pedigree cattle, 5,000 sheep and goats and 3,250 pigs. Horses are very rare, owing to adverse climatic conditions, and, together with mules and donkeys, number little more than 300. A considerable trade in livestock for slaughter purposes is done with the Katanga Province of the Belgian Congo. In fact, after meeting the ever-growing requirements of the local markets, more especially in the mining areas, the supply of slaughter cattle in this country is insufficient to meet the demands of the Katanga. The importance of grading up both native and European-owned cattle is being everywhere realised. Farmers will probably import more pedigree stock if the experiments, carried out by the Veterinary Department as described above, continue to have successful results.

IX. Mining and Industry.

During the year under review the only mines producing were the Jessie Gold Mine and the Rhodesia Broken Hill Mine, which produces lead, zinc and vanadium.

The former is a small private concern with an output of 200 ounces of gold per month. Situated, as it is, in a part of the Mkushi District which is heavily infested by tsetse fly, and cut off during the rains from all communications with the railway except by native porters, it is operated under difficulties.

The Rhodesia Broken Hill Mine shows a considerable output for the year, but it was mainly obtained from development rock produced in the course of opening up the mine in preparation for the use of a new and enlarged plant for the treatment of zinc. The mine has employed an average of 150 Europeans and 5,000 natives, but a large proportion of these were at work on the construction of an important hydro-electric power scheme on the Mulungushi River some 36 miles from the mine property. This hydro-electric plant should be completed by May, 1925, when 3,000 h.p. will be generated; and this will be capable of extension up to a total of 12,000 h.p. The mineral production during the year amounted to some 6,600 tons of metallic lead and 133 tons of vanadium in the form of vanadianite. The dumps on the mine are believed to contain zinc in the form of silicate of zinc to the extent of hundreds of thousands of tons; but this has not yet been treated. A pilot plant exploiting an electric process for the extraction of this zinc has been in successful operation during the year, and with the completion of a new plant the zinc output will be very much greater than the output of the other two metals from the mine; it is hoped, in fact, to make the mine one of the biggest individual producers of zinc in the world.

The Bwana M'Kubwa Copper Mine resumed operations, employing 36 Europeans and 1,300 natives. The Company operating this mine is exploiting an enormous deposit of low-grade ore which would be uneconomic on a small scale; but by the use of a special process of mineral separation, and by installing new plant, which will enable the Company to treat at least 1,000 tons of ore per day, the mine should be made at least as profitable as most of the deposits now being mined in America.

In the districts adjacent to the Congo Border there are indications of many other copper deposits, and steps have been taken to commence the exploration of them. The results hitherto obtained have been most encouraging, and it is highly probable that a copper field of great significance may be developed in this area.

The following table shows the mineral production for the Territory during the year. In the case of base metals the real value is not accurately known until after the lapse of a very considerable period, owing to delays in realisation, and, therefore, only the tonnage is given :—

			£
Gold	**1,245 ounces.**	**Value**	**5,784**
Silver	**205 „**	**„**	**21**
Copper Blister	**109 tons.**		
Lead Metallic	**6,613 „**		
Vanadium Vanadianite	**133 „**		

The only industrial establishment in the Territory at present is the Zambesi Saw Mills, Limited, at Livingstone. This Company cuts the timber in the more heavily-wooded country to the north-west of that town and brings it to the mills for sawing by means of a light tramway. The greater part of the timber is used for the manufacture of sleepers both for the Beira, Mashonaland and Rhodesia Railways and also for the South African Railways. Twenty-five Europeans and more than 1,000 natives are regularly employed and there is every prospect of further development.

X. Native Affairs.

The last few years of the British South Africa Company's regime were characterised by a rigid economy. The depleting effects of the war on the District Service had not been entirely corrected by the time of the change of Government, and the administrative staff has not yet been brought up to the numerical strength which is desirable.

It may be said that the general condition of the natives is satisfactory. The uneventful history of the year is evidence of the tranquillity of the native population. The rate of the native tax in the eastern districts was raised in 1920 from 5s. to 10s. This increase was found to bear heavily on the inhabitants of some of the poorer parts of those districts and the rate in the eastern districts has now been reduced from 10s. to 7s. 6d. It is hoped that little, if any, decrease in the Tax Revenue will result, as the number of defaulters is likely to be smaller.

One of problems that call for attention is the employment of the nat In the western districts a certain amount of grain is grown f ocal sale, and a fair trade in native cattle is done with the gian Congo. The shore dwellers of Lakes Mweru and Bangweulu carry on a small trade in dried fish with the mining areas of the Katanga. But apart from these, the native's only means of finding money for his tax is through the service of the European either in Northern Rhodesia or in neighbouring territories. Mining operations at Broken Hill and Bwana M'Kubwa absorb an increasing number of labourers at a fair wage, and it is hoped that future local development may enable the native to earn a wage sufficiently high to induce him to remain and work within the borders of his own country. This applies also to the development of the agricultural and planting industries, in which there is a continued and ever growing demand for labour. At present, however, the lure of higher wages, combined perhaps with a spirit of curiosity of adventure, induces many young men to seek work elsewhere. The copper mines in the Katanga District of the Belgian Congo and the gold mines of Southern Rhodesia attract many Northern Rhodesia natives, who have acquired a good reputation as desirable employees. During the year, 8,000 were recruited by Messrs. Robert Williams and Company for the Katanga and an equal number by the Rhodesia Native Labour Bureau for Southern Rhodesia, and it is roughly computed that 10,000 sought work outside the Territory independently. Efforts are now being made to encourage the native to become a producer. With the co-operation of the Mission Societies it is hoped gradually to foster production by the native of economic crops, and to effect a general improvement in his methods of agriculture and animal husbandry. Interesting experiments in cotton growing have been made by a branch of the London Missionary Society at Kambole, near Lake Tanganyika, where Mr. Ross is conducting a model self-supporting settlement; the success of European tobacco planters in the East Luangwa District suggests that native production there may have hopeful prospects, and more so as the Asenga people in the west of that district have long had the reputation of being the best growers of native tobacco in the Territory.

Conditions in Barotseland differ in some respects from those obtaining in other parts of the country. The Paramount Chief, assisted by a Khotla or Council of Indunas, exercises judicial authority in civil cases and land disputes and domestic authority generally. He has the benefit of the advice of a Resident Magistrate. The ruling class is drawn mainly from the Barotse people, but in the actual Barotse District less than one quarter of the population belongs to the Barotse tribe proper, the remainder consisting of tribes which either have been subdued at some period by the Barotse or have placed themselves under Barotse protection in return for assistance against their enemies. The late Paramount Chief Lewanika, by agreement with the British South Africa Company, consented to the abolition of slavery and to the commutation of the tribute formerly exacted from his subject peoples for an annual share in the Native Tax, but he retained a considerable share of judicial power for himself and his

Khotla, and refused to relinquish his rights to the hunting of game. Relations with Lewanika were, on the whole, very satisfactory, but since his death in 1916 difficulties arose from time to time in regard to methods of administration.

In July, 1924, a series of meetings took place at Livingstone between the Governor and the present Paramount Chief and his Councillors, at which it was agreed, *inter alia*, first, that the customary twelve days unpaid labour formerly exacted by the bigger Chiefs from the common people should be abolished on consideration of a fixed annual payment by the Government of £500 to the Paramount Chief and £2,000 for division among his "Indunas;" and, secondly, that the Chief should accept £350 a year in lieu of his half share in the fees paid for game licences in the western districts, and £500 a year for the surrender of his rights to "ground" tusks outside the Barotse District. The settlement of the first question will go far towards abolishing a source of much hardship; the settlement of the second has enabled a long-desired consolidation of the game laws to be effected.

Further outbreaks of pleuro-pneumonia occurred among the Barotse cattle which resulted in considerable losses, but it was not found possible to reach any agreement with the Chief as to preventive measures. The Government is therefore obliged to maintain a cattle cordon from the Zambesi for a distance of 200 miles northwards to the Kafue River in order to prevent the spread of the disease to other districts.

In the year 1905 a fund was created known as the Barotse Trust Fund, the objects of which were to provide educational, medical, veterinary and agricultural services in the Barotse District. The fund was credited with 10 per cent. of the tax collected from all the natives of the portion of the Territory formerly known as North-Western Rhodesia; but as the money was being spent entirely within the Barotse District proper it was felt to be scarcely just that large numbers of natives should be contributing to a fund from which they derived no benefit. It was also felt that the fund ought to be put on a sound legal basis. A Bill was accordingly prepared in 1924–25, and has since become law, whereby the 10 per cent. formerly set aside from the tax collected in the whole of the former North-Western Rhodesia is replaced by 30 per cent. of the tax collected from natives of the Barotse District. Out of the amount so realised an annual payment of £1,700 is made to the Paramount Chief. The Trusteeship of the fund is vested in the Governor and its management in a Board consisting of the Secretary for Native Affairs, the Director of Native Education, the Treasurer, the Secretary for Agriculture, the Principal Medical Officer, and two missionaries appointed by the Governor. The objects of the fund are set forth in detail, and an executive committee, composed of officers and missionaries in Barotseland, together with a representative of the Lealui Khotla, is to be established at Mongu to carry them out.

XI. Education.

EUROPEAN EDUCATION.

There are six Government schools, three farm schools and one Government-aided school, of which all, except one, at Fort Jameson, are situated on or near the railway line. Two of the Government schools, those at Kalomo and Mazabuka, have boarding houses attached to them with accommodation for 44 children.

Twenty-one teachers were employed in the schools. The total attendance at all schools on 31st March, 1925, was 352, of whom 181 were boys and 171 girls, an increase of 56 on the number at the corresponding date in 1924; but there still remains an approximately equal number of children of school age who are receiving little or no education.

NATIVE EDUCATION.

Government activities in this direction have hitherto been confined to the Barotse National School at Mongu, which is financed by the Barotse Trust Fund, and, together with out-schools, is staffed by three Europeans and twenty natives and attended by 782 children; and to a small school in the native location at Livingstone, which is at present attended by forty-two children.

Elsewhere the education of natives has been left in the hands of the various Missionary Societies, of which there are fifteen at work in the Territory. The Mission Stations number 72, and the subsidiary schools 1,467; 205 Europeans and 1,596 natives are wholly or partly employed as teachers; and the average attendance during the year is given as 47,594. But it must be realised that, except at the 72 Mission Stations and at a few out-schools of Societies which demand a fairly high standard of their teachers, the average Mission School provides, as a rule, little secular education, and attention is chiefly concentrated on religious instruction. Many of them are open only for short periods in the year. Each Society turns out boys and men to be evangelists and teachers, but there are only two real training institutes, one under the Paris Mission at Sefula in Barotseland and the other belonging to the Primitive Methodists at Kafue. There is also a preparatory seminary for priests at Chilubula where the White Fathers prepare candidates for the seminary at Tabora, but hitherto none has been sent forward.

In view of the diversity of educational ideas and principles among the Missions and of the very different standards demanded by them, the Government has decided that the time has come to co-ordinate and supervise the education of the native. The services of the Missions will continue to be utilised, but it is proposed to exercise some control over them and, by encouraging the Societies to appoint trained educationalists in a supervisory capacity, by giving financial grants in aid of salaries of certificated teachers, by assisting in the establishment of boarding schools and by other similar means to produce in course of time a higher standard and a greater uniformity. Especial efforts will be directed towards the encouragement of technical and agricultural education. The standardisation of any curriculum, however, in such a Territory as Northern Rhodesia is attended with many difficulties, not the least of which is the absence of any "lingua franca"; one of the results of this is to prevent the transfer of teachers from one area to another or, if such a transfer has to be made, it is at the cost of making the teacher start afresh on an unknown language. Progress may be slow, but it can be said that a new era is beginning as regards native education in the Territory.

XII. Medical.

Government maintains European Hospitals at Livingstone, Broken Hill, Lusaka, Mongu, Fort Jameson and Kasama; Native Hospitals are also maintained at these places and at Mazabuka, Fort Rosebery and Ndola.

During the year, 495 Europeans were admitted to hospital and of these nine died. No figures as to the number of Europeans treated outside the hospitals are available. The total number of deaths among Europeans was forty; of these eight were due to blackwater fever, two to malaria, two to enteric, one to dysentery and the remainder to various non-climatic diseases, including one from accident, one from suicide, and three due to premature birth. In the same period 5,887 natives were treated as in-patients and 49,575 as out-patients, among whom there were 368 deaths.

Among the natives influenza accounted for 1,500 cases, of which 74 died; 1,183 of these cases and 51 of the deaths occurred at Broken Hill.

Syphilis is widely distributed, but it has not been found possible to do more than provide treatment for those who make application for it, and they are few. Similarly, the spread of tropical ulceration is due largely to the return to their homes from places of employment of untreated or incompletely treated natives, who will rarely consent to the rather lengthy treatment necessary for a cure.

Leprosy cases reported number 2,789, an increase of 120 on the total reported in 1923, but it is doubtful if these figures show the full extent of the disease, and it is probable that a more complete survey would very greatly increase them. No compulsory segregation has been attempted; such a policy could only be made effective by stringent regulations backed by a larger expenditure of money than can at present be made available.

Most satisfactory results in the treatment of yaws have been obtained from the use of bismuth and sodium tartrate. This treatment was actively carried out in the districts on the Congo Border where the disease is most prevalent. Cures have been so rapid that in all probability the demand for treatment will greatly increase. Arrangements have also been made to provide treatment for the old or infirm who are unable to travel to a hospital to get it.

Smallpox, originating in Angola, appeared in the Balovale sub-district of Barotseland in August, 1923, and spread to two neighbouring sub-districts, 128 cases and 27 deaths being reported. By stringent preventive measures such as the quarantining of infected villages, the prevention, by means of cordons of movements of natives, and by systematic vaccination, the outbreak was soon controlled. A total of 135,015 people were vaccinated in Barotseland. Another outbreak, introduced from the Belgian Congo, occurred in the Kasempa and Mweru-Luapula districts, but it was also kept under control by the adoption of methods similar to those employed in Barotseland. Altogether in the whole Territory 201,366 persons were vaccinated in the course of the year.

Sleeping sickness and the existence of tsetse fly continue to provide a problem, the solution of which is of vital importance to large areas of the Territory. Nevertheless, during the year investigation into the disease could be carried on in only one area, that of the Luangwa valley, where Dr. Kinghorn was at work. That part of the valley, which was the subject of this year's investigation, stretches from Fundu at the southern end for a distance of 400 miles in a north-westerly direction to where the Wira River joins the main stream, and, as the valley may be said to average 50 miles in breadth, comprises an area of some 20,000 square miles. The floor of the valley is fairly level and largely covered with mopani bush, except in the neighbourhood of the river or its numerous tributaries where the " mopani " is replaced by thick luxuriant grasses. The mean altitude is about 2,300 feet above sea-level and the climate is more tropical than most of the rest of the Territory. Most of the villages are situated on or near the banks of the larger streams. Game is extremely abundant and of great variety throughout the whole valley, but it tends to collect near the river courses during the dry season and especially from July to September, when it is not uncommon to find a large animal population in close proximity to the villages. Dr. Kinghorn found that an exceptionally large proportion of waterbuck and bushbuck were infected with *Trypanosoma Rhodesiense*, and noted that waterbuck were extremely plentiful in the vicinity of certain villages which had suffered severely from sleeping sickness. Dr. Kinghorn, however, lays stress on the fact that the infection has never assumed epidemic proportions. The oldest natives stated that they had known the disease all their lives, and such evidence as is available tends to corroborate this. Their evidence also agrees with the results of this and previous investigations to the effect that the disease appears in an extraordinarily sporadic manner, that cases are widely scattered and that its incidence is small. Dr. Kinghorn's conclusions support the theory that the trypanosoma is essentially a parasite of game and that man is ordinarily resistant to it, but there is no evidence to show that he acquires any immunity from infection.

Limited resettlement was permitted during the year in the depopulated areas on the shore of Lake Tanganyika, but, though *Glossina Palpalis* is still abundant there, no case of sleeping sickness has been reported from there. It is difficult to account for this, but the suggestion has been made, purely as a conjecture, that the trypanosomes may possibly have died out in the course of the intervening years. A further resettlement took place along the banks of the Luapula and on the shores of Lake Mweru, from which the native population was removed as a preventive measure in 1909.

The position as regards school dentistry is now much more satisfactory than it has been in the past. This is due mainly to the decision of the School Dental Surgeon to provide free treatment in all cases in which fees, which are at a contract and reduced rate, are not voluntarily offered. It is also possible that parents are gradually beginning to realise the advantages of the provision of facilities for the dental treatment of their children. Of the 211 children who attended the clinics 121 received treatment. Of those inspected 74 per cent. were found to have defective teeth; but no difference could be found between children coming from farming and those from mining districts.

XIII. Justice and Crime.

Justice is administered by the High Court of Northern Rhodesia and by the Magistrates' and Native Commissioners' Courts subject to appeal to and review by the High Court.

During the year the High Court dealt with 68 civil matters, as opposed to 57 in the previous year, and heard four actions, three appeals and one petition in bankruptcy. Sessions were held at Fort Jameson in July and October and at Petauke in November. Thirteen criminal cases came before the Court, exclusive of reviews of judgments of the lower Courts. These latter numbered 165, of which 107 were confirmed, 24 quashed, 18 altered, three sent back and subsequently approved and one returned with direction as to sentence, while in the remaining eleven cases the accused were bound over.

The Criminal Investigation Department and the town and district branches of the Northern Rhodesia Police were involved in 3,442 prosecutions, as compared with 3,678 in the previous year. In addition to these, a few cases are tried at stations where there are no police; nor do these figures include the very large number of prosecutions for offences against the Native Tax Law.

The following figures show the convictions for the more serious crimes :—

Murder	**13**
Manslaughter	**12**
Arson	**9**
Forgery	**18**
Perjury	**5**
Housebreaking	**26**
Robbery	**11**
Burglary	**1**
Rape or attempted rape	**12**
Indecent assault	**5**
Assault causing bodily harm	**58**

Eleven out of the thirteen sentences of death were commuted to various terms of imprisonment. In the remaining two the law took its course.

Of the total number of persons accused of crime, 92·9 per cent. were convicted.

There are eight central prisons : at Livingstone, Broken Hill, Fort Jameson, Fort Rosebery, Kasama, Kasempa, Serenje, and Mongu—and 25 local prisons at various out-stations. During the year 1924, 8,914 persons were committed to prison, 32 of whom were to serve sentences of five years or more. The daily average was 1,042. Twenty-nine deaths occurred during the period.

XIV. Posts and Communications.

Seven post offices were staffed by officials of the Posts and Telegraphs Department. In addition to these there were 29 other offices, in which 22 officers of the District Service, four railway officials and three private persons acted as Deputy Postmasters.

A line carried over the Railway Company's poles affords telegraphic communication between the Victoria Falls bridge and the Belgian Congo, and the intervening stations. The line from Livingstone to Broken Hill is double and the remainder single, the length of wire totalling 894 miles. There is also a line from Abercorn to Kasama, a distance of 100 miles. The African Transcontinental Telegraph Company owns two lines within the Territory, viz., from the Nyasaland Border to Abercorn, and from the same border further south to Fort Jameson ; the length of wire being 149 miles and 8 miles respectively.

During the year stamps and embossed stationery were sold to the value of £11,189. A sum of £2,463 was collected on behalf of the Customs Department on dutiable parcels and packets. Money orders were issued to the value of £19,315 ; £11,264 was paid out in respect of money orders issued elsewhere. Postal orders issued numbered 26,963 and were worth £14,611 ; 10,070 were cashed worth £5,712. The Cash-on-Delivery system enjoyed increased popularity and 1,740 packets, valued at £5,714, were dealt with under it. 7,402 articles were undelivered and passed through the Returned Letter Office. The following table shows the quantities of the various kinds of mail matter received and despatched during the year.

	Received.	*Despatched.*
Letters	**972,114**	**955,182**
Postcards	**16,744**	**20,072**
Newspapers	**294,476**	**43,654**
Bookpackets	**216,918**	**79,053**
Parcels	**24,029**	**7,592**
Registered Articles ...	**26,182**	**24,076**
Totals	**1,550,463**	**1,129,629**
Weight	**253,510 lb.**	**91,884 lb.**

A telephone service exists at Livingstone connecting 24 Government Offices and 28 business premises and private residences. A trunk line affords communication with the Victoria Falls Hotel. The present system is no longer adequate to the demand, and in the near future it will be necessary to increase the service.

Monsieur Jamar, Director of Posts and Telegraphs in the Belgian Congo, visited Livingstone in October, 1924, for the purpose of conferring with the Postmaster-General. A satisfactory agreement was reached regarding the parcel post service and telegraph business.

The principal means of communication is the Railway, which, after leaving Livingstone runs in a north-easterly direction, dividing the country into two nearly equal portions. It is owned partly by the Rhodesia Railways Company, partly by the Mashonaland Railway Company and partly by the Rhodesia Katanga Junction Railway and Mining Company, but it is run under the same management as the Beira and Mashonaland Railways, and, together with them, forms in effect a single system which stretches from Vryburg in Bechuanaland and from Beira in Portuguese East Africa through Southern Rhodesia to Sakania in the Belgian Congo. A single line enters the Protectorate by means of a remarkable bridge spanning at a height of nearly 400 feet the River Zambesi at the gorge some 200 yards below the Victoria Falls; it passes Livingstone, crosses the Kafue at the station of that name, and enters the Belgian Congo slightly north of Ndola. The total length of line within the Territory is 507 miles and there are no branch lines.

Of the existing roads, only two can be described as all-season motor roads, viz., only a short stretch of seven miles between Livingstone and the Victoria Falls (and even this is subject to periodic interruption by the flooding of the River Maramba or by any exceptional rise in the level of the Zambesi) and an excellent road made by the Broken Hill Mining Company between Broken

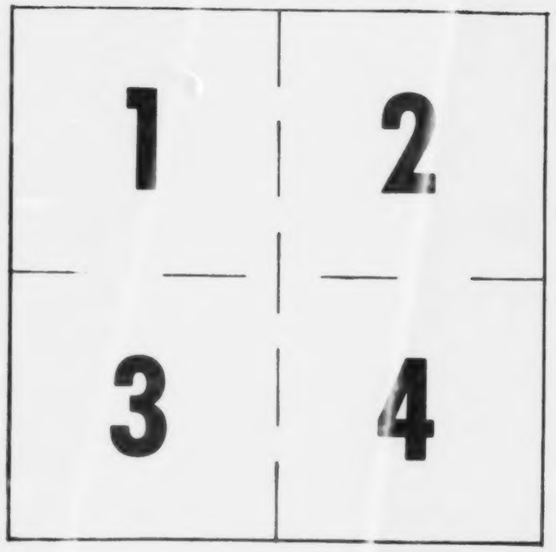
Hill and the hydro-electric power station at Mulungushi, a distance of 36 miles. All the other roads are purely dry-season roads, though sections of some of them, by careful draining, are kept passable for part of the wet season. A road runs northward from Kalomo to Ndola, a distance of 400 miles, and a further 90 miles to N'Changa. Fort Jameson is being linked up by road with Lusaka. A road leaves the Railway at Kashitu and runs viâ Mpika to Abercorn on Lake Tanganyika, a distance of 600 miles. In addition to these "trunk" roads there are some 400 miles of road passable to motor traffic during the dry season, and there are also a number of farm roads kept up by farmers for their personal convenience.

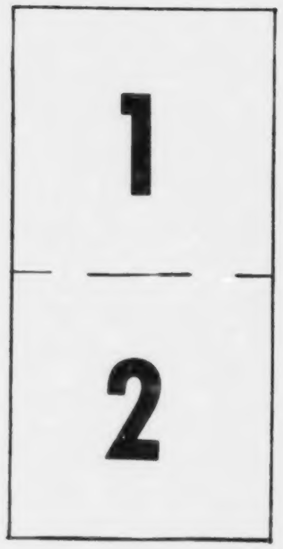
RICHARD GOODE,

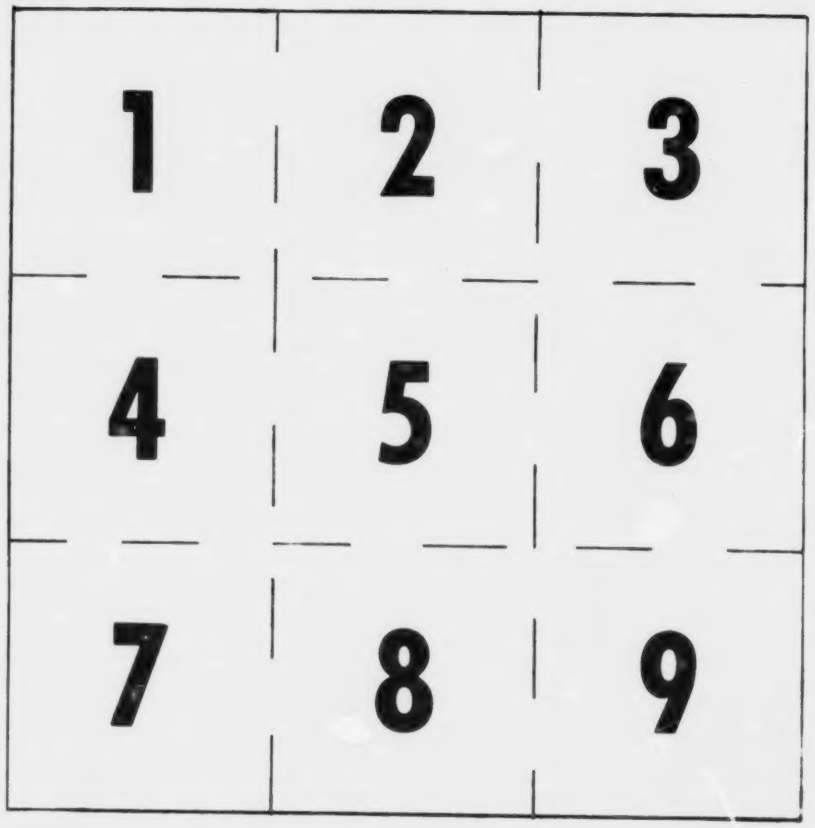
Chief Secretary.

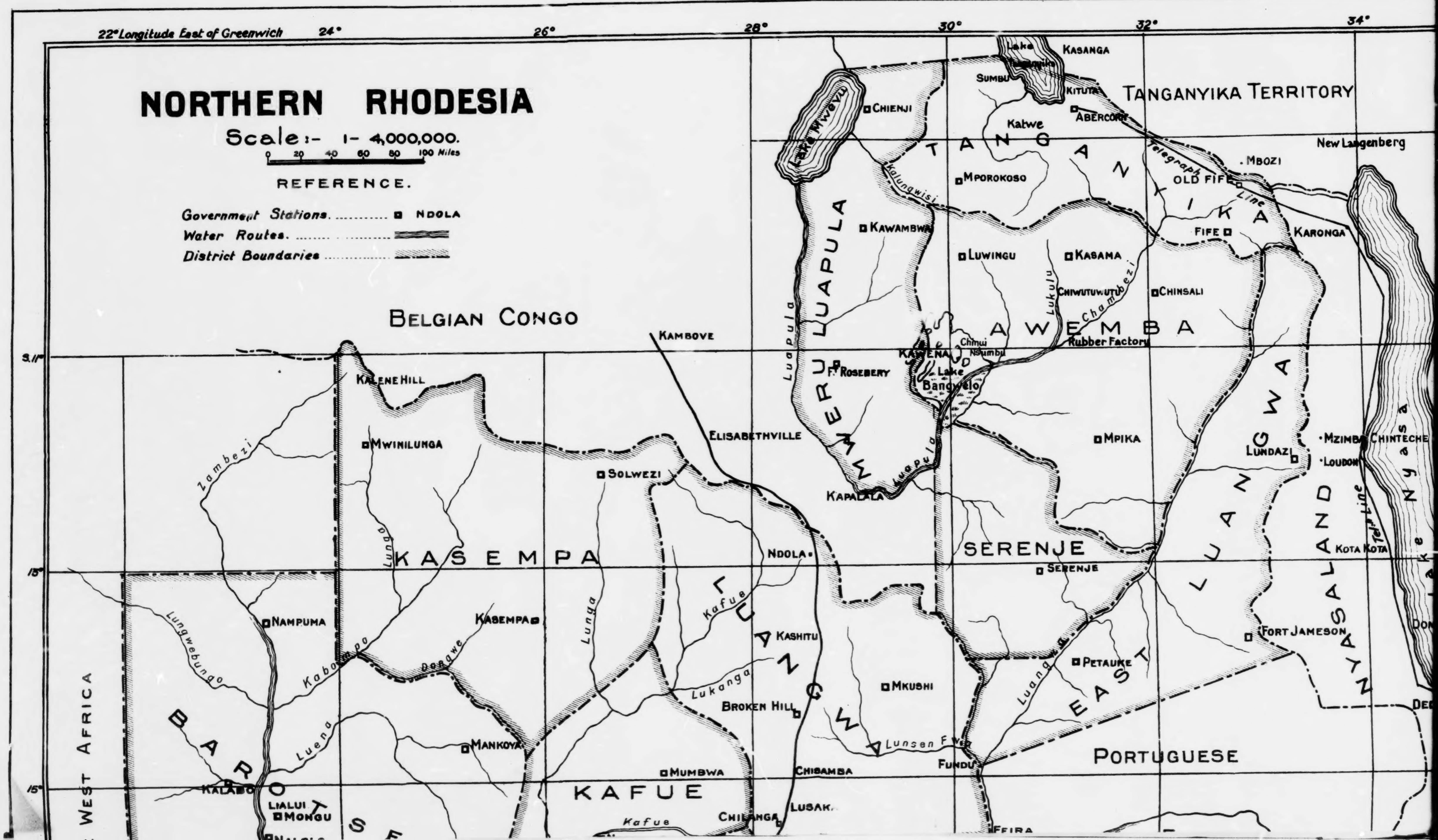
LIVINGSTONE,
15th March, 1926.

Maps on this order too large to be entirely included in one exposure are filmed clockwise beginning in the upper left hand corner, left to right and top to bottom as many frames as required. The following diagrams illustrate the method.



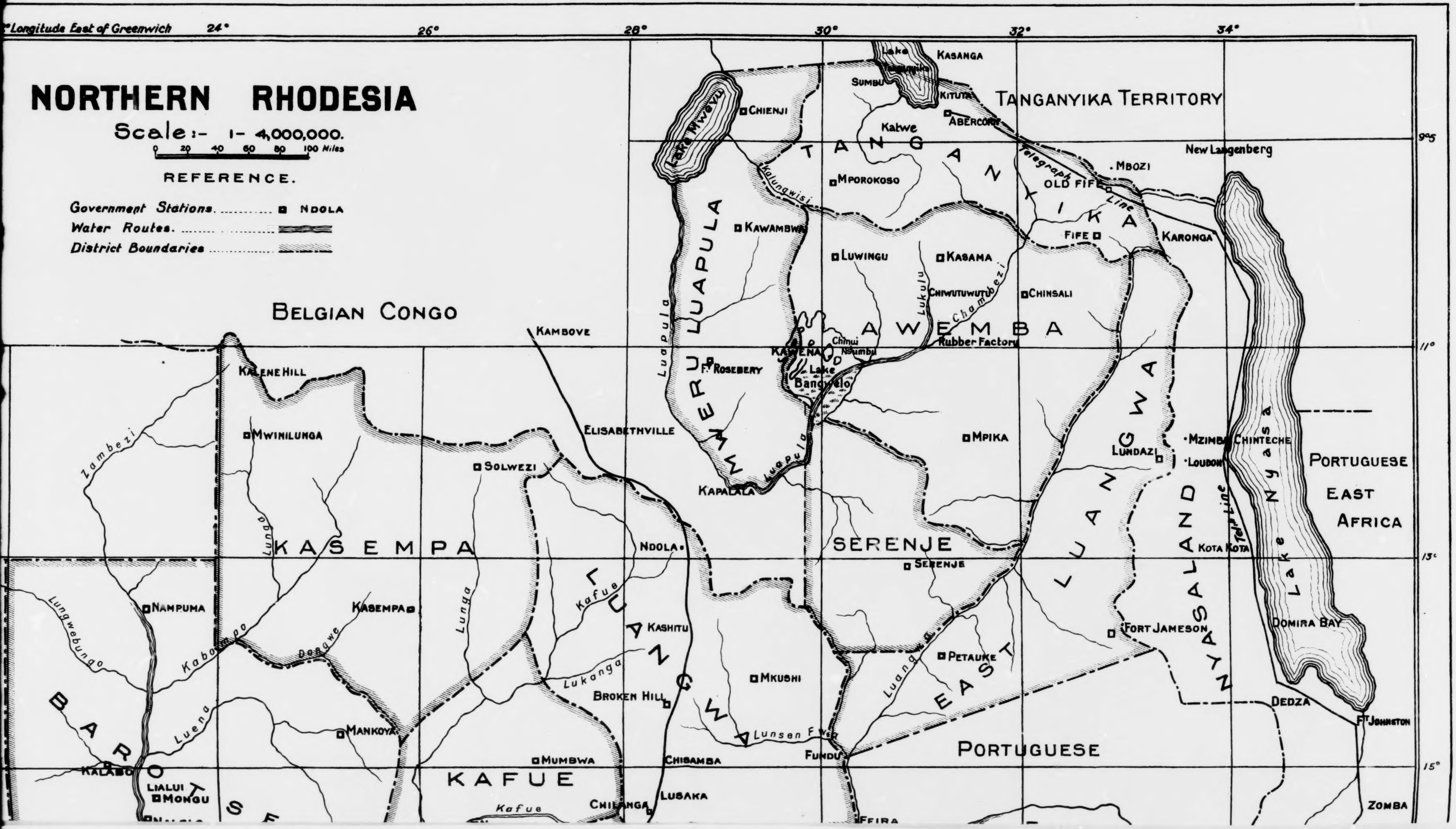


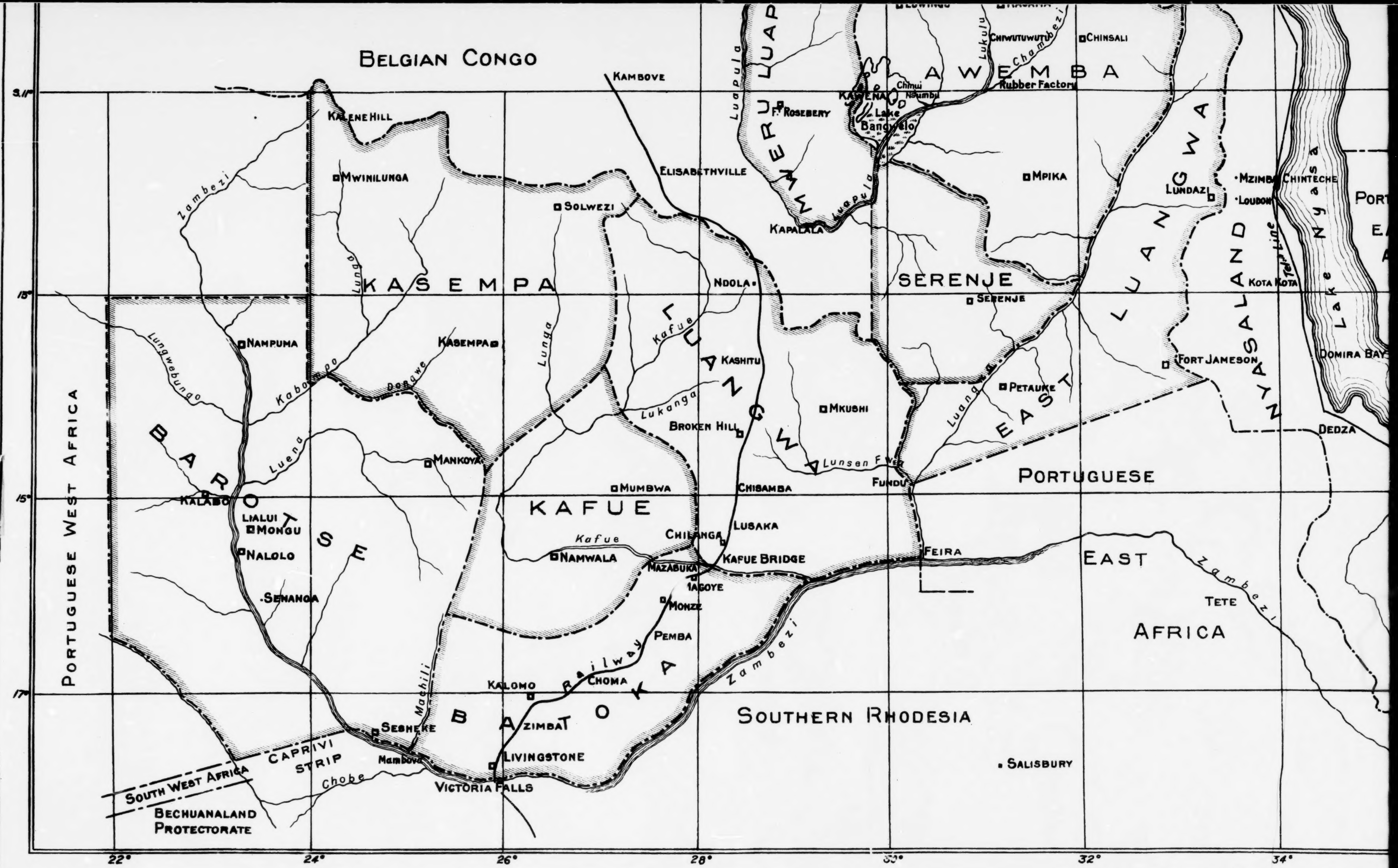




NORTHERN RHODESIA

Scale:- 1- 4,000,000.


NORTHERN RHODESIA
Scale:- 1- 4,000,000.
0 20 40 60 80 100 Miles
REFERENCE.
Government Stations ▫ NDOLA
Water Routes
District Boundaries
Longitude East of Greenwich
24°
26°
28°
30°
32°
34°
9°5
11°
13°
15°
BELGIAN CONGO
TANGANYIKA TERRITORY
PORTUGUESE EAST AFRICA
PORTUGUESE
NYASALAND
TANGANYIKA
AWEMBA
LUAPULA
MWERU
KASEMPA
SERENJE
LUANGWA
EAST LUANGWA
KAFUE
BAROTSE
Lake Mweru
Lake Tanganyika
Lake Bangweulu
Lake Nyasa
Kasanga
Sumbu
Kituta
Abercorn
Katwe
Chienji
Mporokoso
Kalungwisi
Telegraph Line
Mbozi
New Langenberg
Old Fife
Fife
Karonga
Kawambwa
Luwingu
Kasama
Chinsali
Chiwutuwutu
Lukulu
Chambezi
Chimui
Nsumbu
Kawena
Rubber Factory
F. Rosebery
Luapula
Kambove
Elisabethville
Kapalala
Mpika
Lundazi
Mzimba
Loudon
Chinteche
Kota Kota
Domira Bay
Kalene Hill
Mwinilunga
Zambezi
Solwezi
Ndola
Serenje
Lunga
Dongwe
Kabompo
Kasempa
Nampuma
Lungwebungo
Kafue
Kashitu
Lukanga
Broken Hill
Mkushi
Petauke
Fort Jameson
Luangwa
Lunsen
Fundu
Dedza
Ft Johnston
Luena
Mankoya
Mumbwa
Chisamba
Kalabo
Lealui
Mongu
Nalolo
Chilanga
Lusaka
Feira
Zomba



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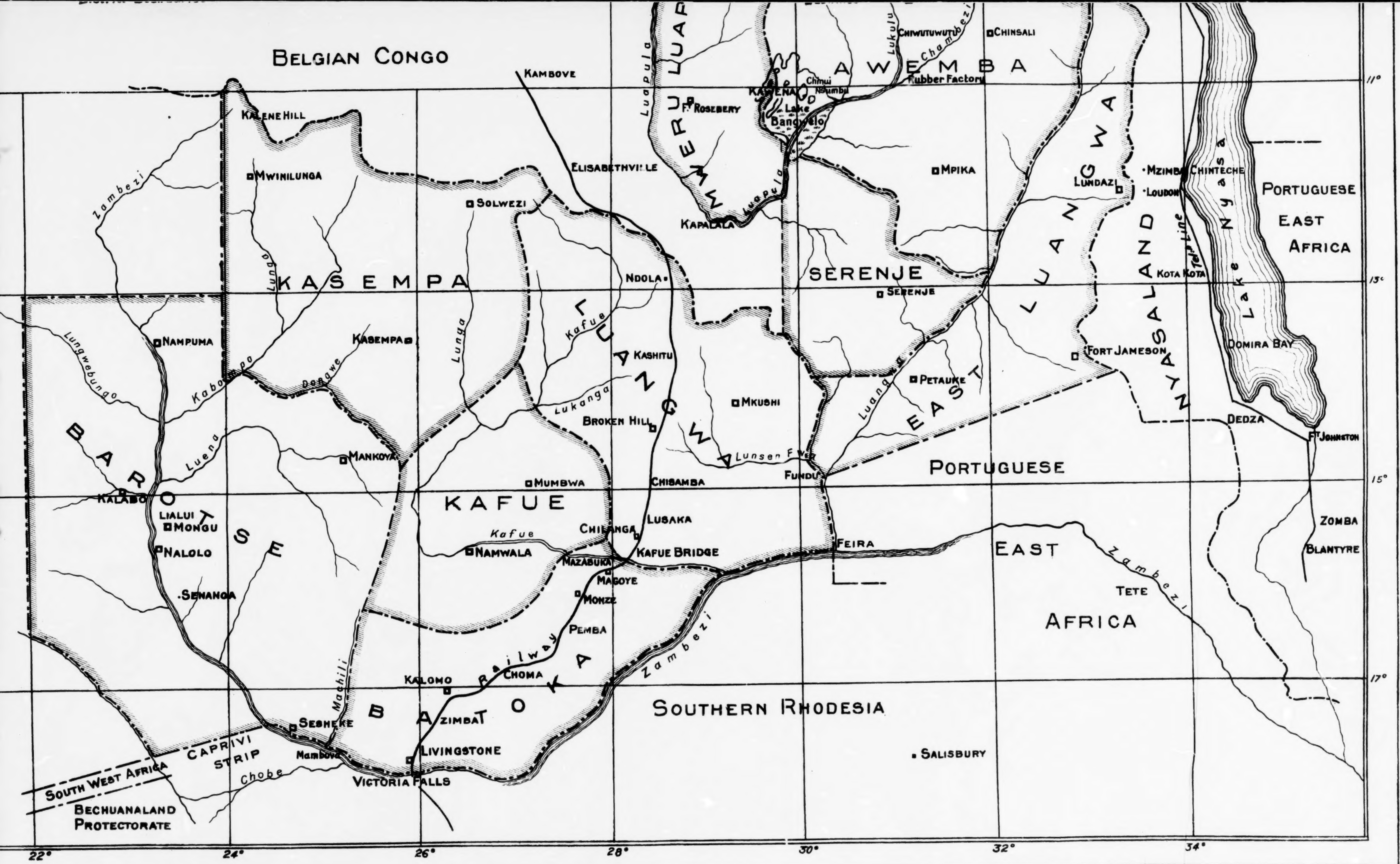

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No. 1363.

NORTHERN RHODESIA.

REPORT FOR 1925—26.

(For Report for 1924–25 see No. 1292 (Price 1s. 0d.).)

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NORTHERN RHODESIA.

ANNUAL REPORT, 1925-26.*

I.—Geographical and Historical.

The territory known as the Protectorate of Northern Rhodesia lies between Longitudes 22° E. and 33.35° E. and between Latitudes 8.15° S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South West Africa, comprising in all an area which is computed to be about 291,000 square miles. The River Zambesi forms the greater part of the southern boundary; its two main northern tributaries are the rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a tableland varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is higher.

Very little is known of the history of the native population until quite recent years. It is conjectured that the various movements of the Bantu people from the north, starting perhaps 2,500 years ago, crossed and recrossed what is now Northern Rhodesia. Whether these movements, in their effect on this portion of Central Africa, were migratory or predatory, whether they found any aboriginal inhabitants or traversed an uninhabited forest, whether they resulted in any form of settlement or merely passed to other countries, is alike unknown. All that can be said is, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambesi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Inroads from the north were frequent as well as from the south, whence came the Angoni, a branch of the warlike Zulu, in the middle of the 19th century. At the present time the most important tribes are the Awemba (98,000), the Achewa (66,000), the Asenga (60,000), the Angoni (57,000), and the Awisa (32,000) in the eastern districts; and the Batoka (96,000), the Barotse (44,000), and the Bakaonde (25,000) in the western districts.

The earliest recorded information about Northern Rhodesia is contained in the diaries of the Portuguese Governor of Sena, Dr. Lacerda, and of his chaplain, Pinto, who led an expedition from

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* **NOTE.—A Sketch Map of Northern Rhodesia will be found in the Report for 1924-25 (No. 1292).**

Tete in 1798 into Kasembe's country, close to the eastern shore of Lake Mweru. Little more is known of the history of the country until the arrival of Dr. Livingstone in 1855, when he visited the Victoria Falls and travelled through Barotseland. But in the interval Arab inroads from the north-east had occurred, and the slave trade which they established, continued unchecked until 1893. This baleful influence had gradually spread from the shores of Lakes Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in that year the slave trade in this territory received its first serious check. In each succeeding year more Arab settlements on the Lake shores were destroyed; Sir Harry Johnston defeated the Arab Chief Mlozo at Karonga in 1894; and the last caravan of slaves, which was intercepted on its way to the East Coast, was released at Fort Jameson in 1898. Bands of slave traders were encountered on the north-west boundary and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

Previous to 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland—North-Western Rhodesia Order in Council placed the administration of the western portion of the country by the Company on a firm basis; and this was closely followed by the North-Eastern Rhodesia Order in Council of 1900 with similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercises of certain powers of control by the Crown) continued until 1924, when, in terms of a settlement arrived at between the Crown and the Company, the administration of the Territory was assumed by the Crown, and the first Governor was appointed on 1st April, 1924.

II.—Climate.

There are considerable climatic differences between various parts of the country. The Zambesi, the Luangwa, and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November, before the rains break, when the mean maximum is about 97° in the Zambesi valley stations and 85° at plateau stations. The mean maximum for the seven months of the hot season (September to March) is approximately 87° with a mean minimum of 68°, while the corresponding figures for the five months of the cold season (April to August) are 80° and 53°. During the year under review, the highest mean maximum recorded at Livingstone for any one month was 95.7° in November, and the lowest mean minimum for any one month was 46.5° in July; at the same station the absolute maximum for the year was 103.1° recorded in

November, and the absolute minimum was 40.0° recorded in June and August. The highest temperature recorded in the Territory was 109.0°, at Namwala, and the lowest was 30.0°, at Solwezi.

The rainy season usually commences in November and lasts until April, after which month rain is only rarely experienced, and then in negligible quantities. The season 1924-25 experienced an unusually heavy rainfall, following upon a drought during the previous year. The season under review was more normal, though the northern districts suffered considerably from floods owing to very heavy rains in February and March. At Livingstone 27.47 inches were recorded, but at Broken Hill, Serenje, and Ndola the rainfall amounted to between 51 and 58 inches.

III.—Vital Statistics.

There has never been a complete census of all persons in the Protectorate, but the figures relating to the European population are known, and a fairly accurate estimate of the native population may be obtained from the Native Tax returns. By this means it is computed that the native population numbers rather more than 1,140,000. No figures to show the birth and death rates among natives, or their immigration and emigration, are available.

The European population on 1st April, 1925, numbered 4,624, of whom 2,211 were adult males and 1,193 adult females. During the year, 139 births and 63 deaths were registered.

The Asiatic population is estimated to be approximately 60, and the number of "coloured" persons about 150.

The total of immigrants in 1925, exclusive of natives, was 474, of whom 432 were British subjects, 15 were American, and 27 belonged to other nationalities. No emigration figures are available. Nine persons were deported, of whom five were alien natives.

IV.—General Events of the Year.

The year was made memorable by the visit of His Royal Highness the Prince of Wales. His Royal Highness arrived at Livingstone from the south on 11th July and was received with universal enthusiasm. After spending the whole of the following day in visiting the Victoria Falls, His Royal Highness motored out on the 13th to Kamunjoma where he received the Paramount Chief of the Barotse, Yeta III, and witnessed a variety of aquatic sports. By the following morning the Royal Train reached Kafue, where the Annual Agricultural Show was formally opened by the Pri
Another enthusiastic welcome awaited His Royal Highness
Broken Hill on the morning of the 15th. There chiefs and t
followers from all over the country had gathered to greet

Prince, and there can be no doubt that the many thousands of natives who were present at that meeting carried away with them an indelible impression. Subsequently His Royal Highness motored the 40 miles that separate Broken Hill from Mulungushi, where, by turning a small wheel made from the mine zinc, the Prince freed the water from the dam and allowed it to enter the pressure pipes conveying power to the dynamos 1,200 feet below, and thus formally opened the first electric power scheme in Northern Rhodesia. The Royal Train left for Southern Rhodesia the same night.

The first Conference of Unofficial Representatives of the East African Colonies and Protectorates was opened at Tukuyu, in Tanganyika Territory, on 10th October under the presidency of Lord Delamere. Three representatives of Northern Rhodesia took part in the Conference and a large variety of subjects was discussed.

The first Conference of East African Governors was opened at Nairobi on 25th January, 1926. It was unfortunate that very heavy rains caused serious "washouts" on the railway line between Salisbury and Beira; and this delayed the Governor of Northern Rhodesia so much that he did not reach Nairobi until the closing days of the Conference, though he was able to take part in some important discussions.

This Territory had the good fortune to lie on the route of two important aircraft flights. Mr. Alan Cobham (now Sir Alan Cobham, K.B.E.), flying a De Havilland aeroplane and accompanied by Mr. Emmott as cinematograph operator and by Mr. Elliott as mechanic, reached Livingstone *en route* for Cape Town on 29th January, 1926. Aerodromes had been prepared for him at Abercorn, Ndola, Broken Hill, and Livingstone, and landings were made at those four places. Torrential rains caused some slight delay at Ndola, but, apart from that, no difficulty was experienced. Mr. Cobham left for Bulawayo on 31st January. The return flight being made against the clock, no landing was made at Livingstone, Mr. Cobham having taken a course somewhat to the east of the railway line direct from Bulawayo to Broken Hill on 28th February.

In the following month a flight of the Royal Air Force, consisting of four Fairey seaplanes fitted with land under-carriages, under the command of Wing-Commander Pulford, C.B.E., and following the same route as Mr. Cobham, passed through the Territory. Reaching Livingstone on 25th March, the flight left for Bulawayo and the south four days later.

V.—Legislation.

The Second Session of the First Legislative Council was opened on 15th May, 1925, and sat until 30th May. Twenty-six Ordinances were passed of which one, the Civil Service Ordinance, was subsequently disallowed, as it was found to be deficient in certain respects. Of the other Ordinances passed, the more important were the Barotse Fund Ordinance, establishing a Trust Fund and a Board of Management; the Company's (Amending) Ordinance, dealing, *inter alia*, with foreign companies; the Forests Ordinance, providing for the preservation of forests and controlling the cutting of timber; the Customs and Excise Ordinance, consolidating the Customs and Excise Law; the Game Ordinance, consolidating the Game Laws of North-Eastern and North-Western Rhodesia; the Legislative Council Ordinance; the Post Office Savings Bank Ordinance, establishing a Post Office Savings Bank; and the Registration of United Kingdom Trade Marks Ordinance.

The Legislative Council Ordinance provided for the election of five unofficial members of the Council, the Territory being divided into five electoral areas for the purpose.

Owing to it being impossible to complete the preparation and revision of the Register of voters and to hold an election in time to allow the first Session of the new Council to take place before June or July, 1926, it became necessary to hold a further Session of the Old Council in order to comply with the provisions of the Order in Council. This, the third Session of the First Legislative Council, was held on the 5th March, 1926, the Supplementary Appropriation Ordinance, 1926, being the only legislation before the Council.

VI.—Finance and Banks.

The revenue for the year ended 31st March, 1926, amounted to £371,046, being an excess of £78,288 over the estimate and an increase of £61,251 on the revenue of the preceding year. This excess was due to the receipt beyond the estimated amounts of £11,086 by the Customs Department, of £10,862 under Native Tax, of £26,225 under Income Tax, of £9,031 under Land Sales, and of a net amount of £21,084 under other heads and sub-heads.

The expenditure for the year amounted to £394,145, showing a saving of £16,606 on the sum authorised but an increase of £53,818 on the expenditure of the preceding year. Savings on the estimated amounts were effected to the sums of £2,644 under European Education, of £1,255 under Department of Native Affairs, of £6,521 under District Administration, of £1,111 under Survey, of £3,435 under Northern Rhodesia Police, of £1,499 under Veterinary, and of £4,762 under Public Works Extraordinary. There were also savings of an aggregate of £4,297 under ten other heads of expenditure. On the other hand, expenditure in excess of the estimates was incurred of amounts of £1,795 under Lands Department, of £5,413 under Miscellaneous Services, and of £1,710 under five other heads.

The following tables give the actual revenue and expenditure for the year :—

Revenue.

			£	*s.*	*d.*
Head	I.	Customs	83,056	0	10
Head	II.	Licences, Excise and Internal Revenue ...	189,701	12	0
Head	III.	Fees of Court, &c. ...	33,245	18	2
Head	IV.	Post Office	22,259	16	2
Head	V.	Rent of Government Property	9,083	1	3
Head	VI.	Interest	1,896	11	11
Head	VII.	Miscellaneous	14,272	8	9
Head	VIII.	Land Sales...	17,530	14	9
		Total Revenue ...	£371,046	3	10

Expenditure.

		£	*s.*	*d.*
1.	The Governor's Office	6,260	11	7
2.	Secretariat	5,897	14	0
3.	European Education...	10,590	11	0
4.	Printing and Stationery	5,165	8	0
5.	Department of Native Affairs ...	10,031	12	3
6.	District Administration	89,693	8	6
7.	Treasury	7,800	6	7
8.	Commissioner of Taxes	1,968	18	6
9.	Customs	7,663	19	7
10.	Posts and Telegraphs...	26,098	4	10
11.	Transport and Supply	3,334	14	4
12.	Lands Department	12,492	10	6
13.	Survey Department	6,368	11	1
14.	Audit Office	2,548	0	1
15.	Judicial, Legal, and Prisons Department	21,457	13	2
16.	Northern Rhodesia Police	48,494	17	7
17.	Medical Department	34,634	1	1
18.	Veterinary Department	16,008	16	4
19.	Agricultural Department	5,301	1	2
20.	Mines and Public Works Department	6,166	15	3
21.	Public Works Recurrent	15,286	14	7
22.	Public Works Extraordinary ...	16,774	7	5
23.	Percentage of Tax payable to Barotse Trust Fund...	5,500	0	0
24.	Miscellaneous Services	12,751	10	3
25.	Pensions and Gratuities	15,854	12	6
	Total Expenditure	£394,145	0	2

The deficit for the year, therefore, amounted to £23,099, as against an estimated deficit of £117,993. The following statement gives the financial position :—

	£
Excess of Assets over Liabilities, 1st April, 1925	132,419
Grant-in-Aid	100,000
	232,419
Excess of Expenditure over Revenue... ...	23,099
Excess of Assets over Liabilities, 31st March, 1926	£209,320

Statement of Assets and Liabilities at 31st March, 1926.

Liabilities.

	£
Deposits	16,759
Advances	5,896
Suspense	4,998
Excess of Assets over Liabilities	209,320
	£236,973

Assets.

	£
Cash and Remittances	188,619
Advances	20,780
Unallocated Stores	27,574
	£236,973

The Standard Bank of South Africa has one branch at Livingstone and another at Lusaka; also an agency at Mazabuka. Barclay's Bank (Dominion, Colonial and Overseas) has one branch at Broken Hill and another at Fort Jameson; also an agency at Bwana M'Kubwa. English coinage is mainly used, but the coinage of the Union of South Africa is also current. There is no local paper currency. Notes of the Southern Rhodesian issues of the above-named Banks are in circulation; also, to a limited extent, notes of the Reserve Bank of the Union of South Africa.

VII.—Customs and Trade.

Northern Rhodesia is in the curious position of being divided into two Customs Zones. The Northern Zone, which is known as the Congo Basin Zone, is governed by the conditions of the Berlin Act of 1885. Goods imported into this Zone are, therefore, not subject to the terms of the Agreement with the Union of South Africa, though the duties imposed are in almost all instances similar to those imposed in the Southern Zone, except that equality of trade is granted to all nations. The Zambesi Basin Zone is subject to Customs Agreements with the Union of South Africa and Southern Rhodesia, and with Basutoland, the Bechuanaland Protectorate, and Swaziland. A new Customs Agreement with the Union of South Africa and Southern Rhodesia was negotiated in October, 1924, on the lines of the previous agreement, but with certain modifications as to the control of traffic in " scrub " cattle and " scrap " tobacco. Under the terms of the new Agreement, Northern Rhodesia receives 12 per cent. *ad valorem* on removals from the Union of South Africa of imported goods, and 6 per cent. on removals of South African manufactured goods; unmanufactured produce of South Africa is not subject to duty. The Union of South Africa charges the actual duty at Union rates due on removals from Northern Rhodesia of imported goods, but allows entry to Northern Rhodesia produce free of duty. The minimum sum payable by the Union of South Africa to Northern Rhodesia is £12,500 per annum.

The following table shows the value of the imports and exports for the year 1925 from and to other countries, with corresponding figures for 1924 :—

	1925.		*1924.*	
	Imports.	*Exports.*	*Imports.*	*Exports.*
	£	£	£	£
Union of South Africa ...	**97,648**	**127,130**	**63,228**	**110,222**
Southern Rhodesia ...	**171,482**	**34,916**	**143,842**	**36,406**
United Kingdom ...	**719,313**	**73,950**	**306,354**	**70,636**
Rest of the British Empire	**40,704**	**17,950**	**22,392**	**23,045**
Total British Empire	**£1,029,147**	**£253,946**	**£535,816**	**£240,309**
Foreign Countries... ...	**254,878**	**178,046**	**126,826**	**213,745**
Total Merchandise	**£1,284,025**	**£431,992**	**£662,642**	**£454,054**

The gross Customs and Excise revenue for the year amounted to £83,567, being £11,597 more than had been estimated and £7,208 in excess of the gross revenue for 1924.

The principal articles imported during 1925 were :—

	£
Animals (living), agricultural and pastoral products	30,389
Foodstuffs	101,584
Ales, spirits, wines, and beverages (potable) ...	38,249
Ales, spirits, wines, and beverages (non-potable)	299
Tobacco	19,473
Textiles, apparel, yarns, and fibres	300,536
Metals, metal manufactures, machinery and vehicles	522,711
Minerals, earthenware, glassware, and cement	67,555
Oils, waxes, resins, paints, and varnishes ...	45,892
Drugs, chemicals, and fertilizers...	22,776
Leather and rubber and manufactures thereof...	21,555
Wood, cane, wicker, and manufactures thereof	35,103
Books, paper, and stationery	15,134
Jewellery, timepieces, fancy goods, and musical instruments (including sporting and athletic and tobacconist wares)	19,285
Miscellaneous	43,484
	£1,284,025

The principal articles exported were :—

	£
Animals (living)	57,723
Hides and skins	14,420
Ivory	8,280
Butter	806
Maize	29,513
Wheat	5,330
Maize meal	9,461
Pulse	1,167
Tobacco (unmanufactured)	99,122
Cotton (raw)	6,276
Ores—	
Copper	1,000
Lead	67,105
Vanadium	35,350
Other	6,240
Gold	5,281
Silver	20
Lime	732
Timber (unmanufactured)	11,477
Curios	398

VIII.—Land, Agriculture, and Live Stock.

Of the total approximate area in the Territory of 186,240,000 acres, the North Charterland Exploration Company holds, subject to the due assignment of native reserves, a concession over 6,000,040 acres, the British South Africa Company owns three freehold areas comprising 2,758,400 acres in the Tanganyika District, and 2,962,608 acres have been otherwise alienated for purposes of European settlement. The total area of alienated land is, therefore, 11,721,048 acres, which is about 6.3 per cent. of the total area of the Territory.

Most of the alienated land is used for grazing, but some is unsuitable for either grazing or agriculture.

The following table will give a comparative idea of the acreage under the various staple crops in the three previous seasons :—

Season.	*Maize.*	*Tobacco.*	*Cotton.*	*Wheat.*	*Total area under cultivation.*
1923–24 ...	42,377	3,462	2,331	1,250	52,243
1924–25 ...	35,568	4,323	16,702	2,633	61,712
1925–26 ...	36,470	4,939	11,849	Not known.	60,286

Smaller areas were planted with fodder crops, groundnuts, potatoes, beans, kaffir-corn, oats, etc., which are considered minor crops.

The climatic conditions, though not so disastrous as the previous season to the agricultural community, were again unsuitable for cotton growing on account of the late and heavy rainfall. The previous season, with its heavy rainfall, multiplied the cotton pests, and these have caused as much damage this season as the previous one. The 16,702 acres produced but 195,461 lb. of lint, only 5,000 lb. more than was produced in the previous season from 2,331 acres.

Sums of money amounting to over £9,000 were loaned to farmers growing cotton. Half of the capital of the loans was supplied by the Government and half by the Empire Cotton Growing Corporation. The granting of loans was controlled by a Committee known as the Cotton Growers Assistance Committee. These loans enabled many farmers to plant cotton who would not otherwise have been in a position to plant any crops at all after the two previous bad seasons, the drought of 1923-24, and the flood of 1924-25. The one purpose of the loans, the immediate production of cotton, has been defeated by the climatic conditions. But it is hoped that, with suitable seed, cotton may be grown successfully in more favourable seasons; and it may prove to be a very beneficial rotation crop.

The maize crop in the flood season, 1924-25, was very poor, namely, 94,818 bags of 200 lb., and was not sufficient to meet local and Congo requirements. There was an increase of acreage under maize in the last season, and this increase would have been still greater if the first rains had been earlier instead of two weeks later than the date that they usually fall. It is estimated that the yield will be almost double that of the previous season. Nearly all the farm-grown maize, as differentiated from the native-grown maize, is handled by a co-operative society. This society has now secured a large contract with mines in the Belgian Congo for a period of years at a fair, but satisfactory, price. This fact has stabilised the local maize market, which will be an incentive to increased and more profitable production than heretofore.

The consumption of maize and maize meal at the mines in the north of the farming area and in the Congo is increasing rapidly, but it is believed that the local farmers will be able to produce sufficient for all requirements. It is anticipated that they will do this when they feel that the market is steady at present prices, roughly 11*s*. 6*d*. per bag of 200 lb.

Tobacco growing has obtained a fresh impetus since the re-granting of Imperial Preference. Many settlers are growing tobacco who have had no previous experience, but their results are satisfactory and, in the case of experienced growers, most profitable. It is believed that both the acreage planted with tobacco and the production of tobacco will increase steadily in the next few years.

The acreage planted with wheat in the autumn of 1925 was double that of the previous season, and a further large increase of land under wheat is anticipated in the winter of 1926. The chief reason for the substantial increase in acreage was due to the large amount of water available for irrigation purposes after the heavy rainfall in the previous summer months. A further contributory reason was the establishment of a flour mill at the Co-operative Society's headquarters at Lusaka, which ensured an increased profit to the farmers.

Experiments have been continued at the Agricultural and Veterinary Experimental Station at Chilanga, but the facilities there are too inadequate to allow the Government to expect valuable results. The diseases and other problems of cultivated crops and cattle are such that it is considered necessary that they should be thoroughly and methodically investigated. Therefore the need for more land and better facilities has been so pressing that a site has been chosen at Mazabuka where a suitable Agricultural and Veterinary Research Station is to be established.

The crops grown by natives are at present mainly confined to food crops for their own consumption, though in certain districts additional quantities are grown for sale. Investigations have been made with the view to ascertaining whether other economic crops could be introduced to areas remote from the railway line to enable natives to produce cash crops at their own villages. It is feared that nothing can be done in the matter without trained demonstrators in such remote areas. At the present time agricultural education of an elementary nature is being given by various missionary societies, and grants for this purpose have been made to them by the Government.

Owing to the existence of extensive tsetse fly belts, large areas of the Territory are closed to cattle. It has been found possible, however, to maintain ox-transport in the vicinity of certain of the new mining concerns, which are situated within tsetse fly belts, by the intravenous injection of sodium or potassium antimony tartrate. The palliative effect of the drug is sufficient to keep trypanosomiasis-infected cattle in work for considerable periods.

In the Barotse district there are large numbers of cattle, almost entirely native-owned. Contagious bovine pleuro-pneumonia is enzootic in that district, but the measures in force to prevent its spread to the settled areas continue to be effective. An extensive inoculation scheme for the elimination of the disease from Barotseland is contemplated.

In the remainder of the Territory there are approximately 291,780 native-owned and 89,730 European-owned cattle, the majority of which are unimproved. Grading-up by the use of good bulls of the improved breeds is practised by the more enlightened farmers, and its results are noticeable in many parts of the Territory. The native is conservative and apathetic on the subject of the improvement of his herds, but every opportunity is taken by the staff of the Veterinary Department to impart the elementary principles of animal-husbandry, to emphasise the deleterious effects of inbreeding and neglect of castration, and to foster the practice of selection and general improvement.

Horses are rare owing to the high incidence of horse-sickness. There are 65 horses, 14 mules, and 91 donkeys. No outbreak of glanders has occurred, and all equines must pass the mallein test prior to importation. There are approximately 37,568 sheep, 64,761 goats, and 16,274 pigs.

A considerable trade in live stock for slaughter purposes is done with the Katanga Province of the Belgian Congo. The requirements of the local markets, especially in the mining areas, are increasing annually and the supply of slaughter cattle from Northern Rhodesia is insufficient to meet the demands of the Katanga.

A creamery has been established at Choma and has met with success. The farming community is coming to realise that dairying with its products and by-products is a valuable adjunct to mixed farming; and although Northern Rhodesia still imports dairy produce the local output is increasing.

The settled areas of the country are free from any of the sweeping epizootic cattle diseases. Energetic veterinary police measures have been successful in preventing the invasion of rinderpest from the north, East Coast fever from the south, and contagious bovine pleuro-pneumonia from the west. Sporadic outbreaks of anthrax and quarter-evil occur, but they are promptly suppressed by quarantine, proper disposal of carcases, and vaccination and inoculation. Skin diseases of stock yield to regular dipping, and dipping is responsible, too, for maintenance and improvement in the condition of cattle. The fact that the cattle of the Territory are practically entirely free from tuberculosis must be regarded as one of its most valuable pastoral assets.

Some loss occurs from indigenous diseases of cattle, and experimental work on their incidence, aetiology, transmission, and treatment is being done. The elimination of these diseases would facilitate the process of grading-up by means of pedigree stock already referred to.

It is being more and more realised that Northern Rhodesia is a valuable cattle country, and that, by means of paddocking and sound methods of herding, farms can be made to carry more stock according to their acreage than has hitherto been considered possible.

IX.—Mining and Industry.

During the year under review the only mines producing were the Jessie Gold Mine and the Rhodesia Broken Hill Mine, which produces lead, zinc, and vanadium.

The former is a small private undertaking with an output of some 200 ounces of gold per month. It is situated in a part of the Mkushi district which is heavily infested by tsetse fly, but it has now, for the first time, been connected by road with the railway at Lusaka.

The output of the Rhodesia Broken Hill Mine has again been chiefly from development rock produced in the course of opening up the mine in preparation for the use of the new plant for the treatment of zinc. This plant is expected to be running by the end of 1927 and to turn out not less than 40 tons of zinc per diem of almost chemical purity. At the present time, zinc is the product of a pilot plant only, but in future the mine will be essentially a zinc mine, with lead and vanadium as by-products. During the year the hydro-electric power station at Mulungushi was completed and formally opened by His Royal Highness the Prince of Wales. Electric power is now conveyed from Mulungushi to the mine 36 miles away.

The Bwana M'Kubwa Copper Mining Company declared no output during the year, which was occupied solely in the erection of a plant for the new chemical process and in preparing the open cast for mining operations. The plant commenced running in October. A few of the ordinary 'teething' difficulties have been experienced but are being overcome, and with the commencement of 1927 regular outputs may be expected.

Intensive prospecting proceeded during the year on the properties of the Rhodesian Congo Border Concession, Limited.

and met with such favourable results that in October the N'Changa Mines were floated off into a Company with a capital of £600,000 for development and further work. A good deal of work was also done in the Lunsemfwa properties of the same Company.

The M'Tuga Copper Mine changed hands during the year, and the present owners are pressing ahead with development work.

Satisfactory results also attended work on the N'Kana claims of the Bwana M'Kubwa Company, and the Roan Antelope Mine, while from at least six other quarters encouraging discoveries have been reported.

Speaking generally, the mineral prospects, though good at the beginning of the year, have improved greatly, and it is now an accepted fact that a copper field of great significance exists along the Northern Border, extending at least 150 miles in a north-west and south-east direction and having a breadth of not less than 50 miles.

The labour, European and native, engaged on the mines rendering returns was 15,500, but this is possibly 15 per cent. below the real figure, as the small prospecting camps do not render returns.

The actual returns of mineral production for the year were as follows :—

	Value. £
Gold, 1,248 ozs.	5,421
Lead, 3,352 tons	51,455
Zinc, 236 tons	5,951
Vanadium, 187 tons	52,485
	£115,312

The only industrial establishment in the Territory at present is the Zambesi Saw Mills, Limited, at Livingstone. This Company cuts the timber in the more heavily wooded country to the north-west of that town, and brings it to the mills for sawing by means of a light railway. The greater part of the timber is used for the manufacture of sleepers both for the Beira and Mashonaland and Rhodesia railways, and also for the South African railways. Twenty-five Europeans and more than 1,000 natives are regularly employed and there is every prospect of further development.

X.—Native Affairs.

The year will be memorable to the native chiefs and people of the Territory as the year in which His Majesty the King sent his son to visit them. Representatives from every tribe were for the first time in history assembled together with a common object, to greet His Royal Highness the Prince of Wales. The place of this meeting was Broken Hill. The Paramount Chief of the Barotse, with his Indunas, was afforded a separate but scarcely less impressive reception on the banks of the Zambesi.

In other respects the year has been from an administrative point of view more eventful than its predecessor. Important reforms were made in the administration of the Barotse people, notably by the passage of the Barotse Trust Fund Ordinance. The Barotse Trust Fund had been in existence since 1905, and had as its object the provision of educational, medical, veterinary, and agricultural services in the Barotse District. The Fund was then credited with 10 per cent. of the tax collected from all the natives of the portion of the Territory formerly known as North-Western Rhodesia, but, as the money was spent entirely within the Barotse District proper, it came to be felt to be scarcely just that large numbers of natives should be contributing to a fund from which they derived no benefit. The new law substitutes for the 10 per cent. formerly set aside from the tax collected from the whole of the former North-Western Rhodesia an amount equal to 30 per cent. of the tax collected from the natives of the Barotse District. It also sets forth in detail the objects to which the Fund may be devoted, and it provides machinery for the administration of the moneys so collected.

It is too early yet to make any final estimate of the results of the abolition of unpaid labour for the chiefs and indunas, about which agreement was reached in 1924 as mentioned in the last report. The ruling classes have not yet learned how to use the money they receive in commutation of their ancient customary right, and squander much of it in valueless purchases, while they try to obtain the labour they need at much less than market rates. The results are uncultivated fields, discomfort, and complaints that the commutation money is insufficient. Experience alone can teach them better management of their affairs. The labouring classes on their side have still to learn that the days they have gained should be used for their own profit and not wasted in idleness.

In addition to the Barotse Trust Fund Ordinance, two Ordinances were passed directly affecting the native population. By the Native Tax Amendment Ordinance, provision was made for an automatic increase of 1s. per tax on all taxes which are not paid punctually. The Game Ordinance consolidated the existing game laws and, among other things, provided for the issue of a special licence to enable natives to hunt certain game at a reduced fee within the limits of the sub-district to which they belong.

Various changes were made in the grouping of districts. Serenje District was incorporated as a sub-district with the Luangwa District. Chiengi was re-opened as a sub-district of the Mweru-Luapula District; and this was found to be justified not only by increased administrative efficiency in that remote corner of the Territory adjoining the Belgian Congo but also by an increase in revenue collected, which has more than covered the additional cost.

A great change has come over the field for native labour. Three years ago, opportunities for work in the Territory, even at the lowest wage, were entirely insufficient. Now mining and prospecting developments, combined with their inevitable repercussions on agricultural and other activities, have produced a large and increasing demand for labour within the Territory. It is highly probable that the numbers of natives who leave Northern Rhodesia to work in other countries will decrease with every succeeding year. At the same time, the demand for native labour is steadily increasing beyond the borders of Northern Rhodesia, and the respective Governments are becoming more and more alive to the necessity for making conditions of labour attractive in order to maintain the flow of independent unrecruited workers from this country. Southern Rhodesia not only insists on good feeding and good treatment in every way even by the smallest employer, but has detailed a special officer of the Native Department to supervise the provision of free ferries, free food issues, and an artificial water supply where necessary along the routes by which labour seeks the Southern Rhodesian centres of employment. The Union of South Africa is still in advance of Southern Rhodesia in the standard of wages, feeding, and general attraction, with the result that many thousands of Southern Rhodesian natives, and not a few of the 22,000 who left this Territory for Southern Rhodesia in 1925, passed on to the Union despite all prohibitions and discouragement. The mandated South West Africa is also proving attractive to the natives of the western districts in spite of the difficulties and dangers of the long march; while, in the north, Tanganyika and, still more the Katanga Province of the Belgian Congo rely to a very considerable extent upon Northern Rhodesian labour. Competition from these various directions, already keen, is certain to grow; and it is evident that, if Northern Rhodesia is not to lose the greater part of its labour, its conditions must be made at least as attractive as those which obtain in the other countries. It is even possible that it will be necessary to offer slightly more attractive conditions in order to counteract the additional lure of adventure which clings to the idea of travel to distant lands. Prohibitive measures are of little use, as the example of Southern Rhodesia, with its comparatively short southern border and with the assistance of the Union's restrictions on native immigration, clearly shows. On the mines, the standard of pay and the general conditions of life are already good; and all that is needed now is a system whereby natives in the remoter parts of the country can get definite information of openings for work, and can be properly looked after on the long journey to the place of employment. The position of agricultural labour is less satisfactory. The strength of the economic forces at work is not yet fully realised, nor is it generally appreciated that the supply of labour cannot be controlled by Government action. In some parts of the country a change of outlook is necessary, but in many places and among the best farmers it is realised that only by their own efforts will they attract and retain native labour on their farms.

It is satisfactory to be able to record that the policy, to which reference was made in the previous report, of reducing the tax payable by natives in the eastern districts from 10*s*. to 7*s*. 6*d*. has had satisfactory results. The total revenue from this source has increased from £101,450 in 1924-25 to £110,862 in the current year, and of this increase the eastern districts were responsible for £2,064 despite the 25 per cent. reduction in the amount of individual tax payable. The most satisfactory aspect of this increase lies not so much in the actual amount of money received as in the evidence afforded that a greater number of individuals have met one of their most important obligations to the State.

Grave crimes have been very rare in most parts of the Territory. There have, however, been several murders, mostly of persons accused of witchcraft, in the extreme north-west, where there are large numbers of wild and superstitious immigrants from Angola. The depth and persistence of the native belief in witchcraft was also well illustrated in a series of murders which came to be called the "Mwanalesa" murders. An educated Nyasaland native by name Tomo Nyirenda, being without regular employment and having been introduced to the doctrines and methods of the "Watch Tower" preachers, adapted their baptismal rites to the ends of the witch-finder. In the course of a few months he caused numerous persons to be put to death as witches. When Northern Rhodesia became to hot to hold him, though the greatest difficulty was experienced in getting from the natives any news of his movements, he moved across the border into the Belgian Congo and continued to conduct his murderous operations there. He was subsequently forced to fly back into this Territory, where, after a persistent chase, he was eventually captured, despite strenuous attempts by the native population to assist his flight.

As a sequel to the Mwanalesa trial, there appeared some correspondence in the English and Rhodesian Press in which misgivings were expressed as to the possession of firearms by natives. The returns furnished by District Officers show that there are 1,099 breechloading rifles, 1,763 breechloading shotguns, and 25,619 muzzleloading muskets owned by natives in a population of over one million. The figures for the breechloading weapons may be taken as approximately correct, but it must be admitted that the registration of muzzleloading muskets is incomplete in some districts. Owing to the length of time necessary to reload them and to their shortness of range, their value as fighting weapons in opposition to modern arms may be almost entirely discounted.

XI.—Education.

European Education.

There are six Government schools and four farm schools, of which all, except one at Fort Jameson, are situated on or near the railway line. Two of the Government schools, those at Kalomo and Mazabuka, have boarding houses attached to them with accommodation for 44 children.

Twenty-two teachers were employed in the schools. The total attendance at all schools at the close of the school year, 3rd December, 1925, was 397, of whom 208 were boys and 189 girls, an increase of 45 on the number at the 31st March, 1925. There are, also, probably 150 children who are being educated outside Northern Rhodesia. There remain something like 350 children who receive no organised education at all.

Native Education.

As foreshadowed in last year's report, the Government began in the year under review to take a more active interest in native education. A sub-department of Native Education under the Department of Native Affairs came into being on the 1st April, 1925. A Director was appointed, also an Advisory Board on which missionaries, officials, and settlers were represented. This Board had its first meeting in July, 1925. A provisional code for five grades and four standards to cover the village and station schools was drawn up. The system on which grants were to be allocated was decided on, and £2,072 was distributed among various missionary societies for the year. The grants were designed to encourage particularly the appointment of qualified Europeans to train native teachers and to give agricultural training, the establishment of more boarding schools for girls, and the systematising of the industrial training already given in a somewhat haphazard way on most mission stations. In the provisional code, emphasis is laid on the teaching of hygiene, gardening and other manual work and on the importance of recreation.

The only native schools under the immediate direction of the Government are the Barotse National School and its seven outschools in Barotseland. The small school in the Livingstone Location, previously supervised by the Government, was handed over to the Paris Missionary Society, which received a subsidy for its maintenance.

The missionary societies have for the most part displayed a gratifying readiness to co-operate with the Government in the improvement of educational facilities for natives. In addition to the two Normal Schools of the Paris Mission at Sefula in Barotseland and of the Primitive Methodist Mission at Kafue on the Railway line, the White Fathers, the Dutch Reformed Church, the London Missionary Society, and the Seventh Day Adventist Mission have all started Normal Schools during the year, receiving grants in aid of the salaries of the educationists in charge, and the Garenganze and Wesleyan Methodist Missions have increased their European educational staff.

Until teachers are better trained the out-schools in the villages are necessarily of little educational value. Most of the 72 mission stations in the Territory have station schools many of which are doing useful educational work. Most of them take a few boarders. There is a particularly good girls' school belonging to the London Missionary Society at Mbereshi, with 108 boarders and a staff of three ladies.

An effort is being made to adopt four of the principal native languages for school purposes, and some success appears to be attending the meetings for this object of missionary representatives and district officials. At present, owing to the multiplicity of dialects there is a great waste of effort in the production of vernacular literature.

Agricultural training is being undertaken on several mission stations. At Kambole Station of the London Missionary Society, Mr. Ross is combining experiments in the growing of cotton, coffee, fibre, and other tropical products with such industrial undertakings as the making of soap from palm oil and rope from fibre. He also grows wheat. Father Moreau, of the Jesuit Mission, is establishing a model farm of such size as a native family may be able later to carry on. The Dutch Reformed Church Mission has started a course of training in agriculture and animal husbandry at their Magwero station in the Fort Jameson District.

Government supervision for the year has had to be confined to such visits to mission stations as the Director was able to make, supplemented by two short tours made by a missionary educationist on behalf of the Department.

XII.—Health.

The Government maintains European hospitals at Livingstone, Lusaka, Broken Hill, Mongu, Fort Jameson, and Kasama. Native hospitals are also maintained at these places and at Mazabuka, Solwezi, Ndola, and Fort Rosebery.

During the year, 697 Europeans were admitted to hospital, and of these 27 died. No complete records as to the numbers of Europeans treated outside the hospitals are available. The total number of deaths among Europeans was 63 (the mortality rate being 13.7 per 1,000). Of these deaths, seven were due to blackwater fever and six to malaria. These were the only deaths due to purely climatic causes. The next highest mortality rates were due to infantile diarrhœa and enteritis 5, pneumonia 4, gunshot wounds 3. Two deaths were due to injuries caused by wild animals, one being a lion and the other a crocodile.

Fifteen infants under one year died during 1925, representing 108 per 1,000 of the births for the year. Of these, five were due to diarrhœa and enteritis, two to malaria, two to pneumonia, one to hydrocephalus, one to heart failure and four to asthenia and premature birth.

During the year, 5,610 natives were treated in hospital, among whom there were 309 deaths.

Influenza, usually mild in type, has been endemic throughout the Territory. In a few instances it assumed epidemic proportions amongst the native population over limited areas and in groups of villages. The death-rate is not known, but there is reason for supposing that it is low. The continued persistence of this disease amongst natives at Broken Hill since 1918 and its peculiar manifestations there are noteworthy.

Syphilis is widely distributed and applications for treatment are becoming more numerous, but the difficulty of inducing natives suffering from this disease to undergo a full course of treatment still remains.

Difficulty is also still experienced in the control of tropical ulceration. It is thought, however, that the incidence of the disease is gradually diminishing.

2,838 cases of leprosy were reported in 1925, an increase of 49 on the total reported in 1924. These figures do not represent the total incidence of this disease, and an effective leprosy survey of the Territory would probably at least double them. Compulsory segregation has not been attempted, as it could not be made effective without stringent legislation and heavy expenditure, neither of which is at present possible. Treatment is provided in all cases in which application is made, and "Hydnocreol" is in use for this purpose, but the results up to the present are indefinite.

Results in the treatment of yaws with bismuth and sodium tartrate continue to be very satisfactory.

Three outbreaks of smallpox occurred during the year. Thirty-eight cases were reported in the Mweru-Luapula District, where the infection was introduced from the Belgian Congo. Six cases were reported in the Kasama District, which was probably infected from the Mweru-Luapula District. Forty-five cases were reported in Barotseland, where the infection was introduced from Portuguese West Africa. These outbreaks were effectively limited by quarantine measures and vaccination. 75,874 people were vaccinated and, so far as can be ascertained, the results of vaccination appear to have been about 80 per cent. successful.

No cases of sleeping sickness were reported from the re-settled areas on the Luapula and on Lakes Mweru and Tanganyika. In view of the very low incidence rate of the disease in the Luangwa area and of the hampering effect of the then existing sleeping sickness regulations on expansion of settlement and on road construction, these regulations were rescinded.

The District Administration has provided figures of native infant mortality on certain Government stations. These, however, can only be taken as roughly indicative of, and lower than, the rate throughout the Territory. They are influenced in this comparison by various factors such as better sanitary conditions, better housing, regular food supplies, the elimination of the conditions which arise from famine, and the provision of medical treatment of some sort. It would appear that under such conditions the infantile mortality rate is approximately 42 per cent.

XIII.—Justice and Crime.

Justice is administered by the High Court of Northern Rhodesia and by the Magistrates' and Native Commissioners' Courts subject to appeal to and review by the High Court.

During the year the High Court dealt with 57 civil matters, as opposed to 68 in the previous year, and heard five actions, four appeals, and one petition in bankruptcy. Sessions were held at Broken Hill in January and September, and at Choma in November. Ten criminal cases came before the Court, exclusive of reviews of judgments of the lower Courts. These latter numbered 266, of which 147 were confirmed, 27 quashed, 46 altered, two sent back and subsequently approved, one sent back and subsequently quashed, one returned with direction as to sentence, while in the remaining forty-two cases the accused were bound over.

The Criminal Investigation Department and the town and district branches of the Northern Rhodesia Police were involved in 3,476 prosecutions as compared with 3,442 in the previous year. In addition to these, a few cases are tried at stations where there are no police; nor do these figures include the very large number of prosecutions for offences against the Native Tax Law.

The following figures show the convictions for the more serious crimes :—

Murder	39	Robbery	3
Manslaughter	8	Burglary	9
Arson	3	Rape and attempted rape	7
Forgery	12	Indecent assault... ...	7
Perjury	15	Assault causing bodily harm	117
Housebreaking	16		

Thirty-two out of the thirty-nine sentences of death were commuted to various terms of imprisonment. In the remaining seven the law took its course.

Of the total number of persons accused of crime, 91.1 per cent. were convicted.

There are six central prisons: at Livingstone, Broken Hill, Fort Jameson, Kasama, Mazabuka, and Mongu, and 29 local prisons at various out-stations. During the year 1925, 7,382 persons were committed to prison, 28 of whom were to serve sentences of five years or more. The daily average was 911.3. Twenty-three deaths occurred during the period.

XIV.—Posts and Communications.

Seven post offices were staffed by officials of the Posts and Telegraphs Department. In addition to these, there were 29 other offices, in which 22 officers of the District Service, four railway officials, and three private persons acted as deputy postmasters.

A line carried over the Railway Company's poles affords telegraphic communication between the Victoria Falls bridge and the Belgian Congo and the intervening stations. The line from Livingstone to Broken Hill is double and the remainder single, the length of wire totalling 894 miles. There is a telephone line from Abercorn to Kasama, a distance of 100 miles. There is also a line from the Nyasaland border to Abercorn, and another from the same border further south to Fort Jameson, the length of wire being 149 miles and 8 miles respectively.

During the year, stamps and embossed stationery were sold to the value of £12,883. A sum of £2,796 was collected on behalf of the Customs Department on dutiable parcels and packets. Money-orders were issued to the value of £24,770; £16,240 was paid out in respect of money-orders issued elsewhere. Postal orders issued numbered 33,053 and were worth £18,394; 12,013 were cashed worth £7,032. The cash-on-delivery system enjoyed increased popularity, and 2,287 packets, valued at £7,244, were dealt with under it. 9,421 articles were undelivered and passed through the Returned Letter Office. The following table shows the quantities of the various kinds of mail matter received and despatched during the year.

	Received.	*Despatched.*
Letters	1,081,340	1,108,226
Postcards	25,688	32,376
Newspapers	392,080	49,400
Bookpackets	191,048	126,880
Parcels	34,996	8,944
Registered Articles ...	32,916	29,900

A telephone service exists at Livingstone, connecting 28 Government offices and 34 business premises and private residences. A trunk line affords communication with the Victoria Falls Hotel. The present system is no longer adequate to the demand, and the service is being increased.

The principal means of communication is the Railway, which, after leaving Livingstone, runs in a north-easterly direction dividing the country into two nearly equal portions. It is owned partly by the Rhodesia Railways Company, partly by the Mashonaland Railway Company, and partly by the Rhodesia-Katanga Junction Railway and Mining Company, but it is run under the same management as the Beira and Mashonaland Railways, and, together with them, forms in effect a single system which stretches from Vryburg in Bechuanaland and from Beira in Portuguese East Africa through Southern Rhodesia to Sakania in the Belgian Congo. A single line enters the Protectorate by means of a remarkable bridge spanning at a height of nearly 400 feet the River Zambesi at the gorge some 200 yards below the Victoria Falls; it passes Livingstone, crosses the Kafue at the station of that name, and enters the Belgian Congo slightly north of Ndola. The total length of line within the Territory is 507 miles, and there are no branch lines.

With the exception of the short road known as the Jameson Road from Livingstone to the Victoria Falls, a distance of seven miles, and the private road of the Broken Hill Mining Company between their mine and the hydro-electric power station of the Mulungushi, a distance of thirty-six miles, there are no macadam-constructed roads in the country, and these only can be described as really " all-weather " roads. All the other roads in the Territory are earth roads, and though the rivers are bridged with bush-timber bridges and the roads embanked and sometimes gravelled where they cross marshland, traffic is interrupted for at least two months of the year, usually February and March.

In the last two years, the mileage of roads passable for from eight to ten months in the year has very considerably increased; and during the season when they are open these roads compare favourably with roads in Southern Rhodesia and the Union of South Africa. The following are the main lines of road now open :—

The Great North Road runs from the Victoria Falls via Livingstone, Mazabuka, Lusaka, Broken Hill, and Ndola to the Belgian Congo border, whence it continues in Belgian territory to Elisabethville.

A road, known as the Military Road, leaves the Great North Road at Kashitu, between Broken Hill and Ndola, and runs in a north-easterly direction via Serenje, Mpika, Chambesi, and Kasama to Abercorn, a distance of about 600 miles. This road is to be joined up with the Tanganyika road system and will eventually form part of the Cape to Cairo road.

Where the Great North Road enters Belgian territory a branch road runs off to the north-west to Solwezi and Kasempa. Other off-sets from the Great North Road lead to Mumbwa (72 miles) and to Mkushi (50 miles).

Another road from Ndola crosses Belgian territory and re-enters Northern Rhodesia at Kapalala, which is a port of entry. This road forms the main line of communication with the Mweru-Luapula District.

Work is proceeding on the Great East Road, which is destined to link Fort Jameson with Lusaka and the railway. It is hoped that through communication along this road will be established by the end of 1927.

All these roads have numerous branches leading to farms, mission stations, or other points of European settlement in the various districts through which they pass. The next few years will undoubtedly see a very great development in all branches of communications.

R. S. W. DICKINSON,

Assistant Chief Secretary.

LIVINGSTONE,
27th August, 1927.

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COLONIAL REPORTS—ANNUAL.

No. 1380.

NORTHERN RHODESIA.

REPORT FOR 1926.

(For Reports for 1924–25 and 1925–26 see Nos. 1292 and 1363 respectively (Price 1s. 0d. each).)

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NORTHERN RHODESIA.

ANNUAL REPORT, 1926.

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HISTORY AND GEOGRAPHY.

The territory known as the Protectorate of Northern Rhodesia lies between Latitudes 8.15° S. and 18° S. and between Longitudes 22° E. and 33.35° E. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South West Africa; and comprises in all an area that is computed to be about 287,950 square miles. The River Zambesi forms the greater part of the southern boundary; its two main northern tributaries are the Rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

NOTE.—A Sketch Map of Northern Rhodesia will be found in the Report for 1924-25 (No. 1292).

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Very little is known of the history of the native population until quite recent years. It is conjectured that the various movements of the Bantu people from the north, starting perhaps 2,500 years ago, crossed and recrossed what is now Northern Rhodesia. Whether these movements, in their effect on this portion of Central Africa, were migratory or predatory, whether they found any aboriginal inhabitants or traversed an uninhabited forest, whether they resulted in any form of settlement or merely passed to other parts of Africa, is alike unknown. All that can be said is that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambesi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Inroads from the north were frequent as well as from the south, whence came the Angoni, a branch of the warlike Zulu, in the middle of the 19th century. At the present time the most important tribes are the Awemba (98,000), the Achewa (66,000), the Asenga (60,000), the Angoni (57,000), and the Awisa (32,000) in the eastern districts; and the Batoka (96,000), the Barotse (44,000), and the Bakaonde (25,000) in the western districts. There are said to be 38 distinct native languages in use, of which Wemba and Chinsenga have been adopted for educational purposes in the eastern districts, and Tonga (closely allied to Chila) and Sikololo in the western. In addition to these, Chinyanja is in use as the official language of the Police, and is probably the language most generally spoken by Europeans; it is really a Nyasaland language—the word means "Language of the Lake"—but it is also spoken to some extent round Fort Jameson.

The earliest recorded information about Northern Rhodesia is contained in the diaries of the Portuguese Governor of Sena, Dr. Lacerda, and of his chaplain, Pinto, who led an expedition in 1798 from Tete into Kasembe's country, close to the eastern shore of Lake Mweru. Little more is known of the history of the country until the arrival of Dr. Livingstone in 1855, when he visited the Victoria Falls and travelled through Barotseland. But in the interval Arab inroads from the north had occurred, and the slave trade which they established continued unchecked until 1893. This baleful influence had gradually spread from the shores of Lakes Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in that year the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shores were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozo at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the East Coast, was released at Fort Jameson in 1898. Even after that, bands of slave traders were occasionally encountered on the north-east boundary, and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slaves quickly disappeared from the country.

Previous to 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland-North-Western Rhodesia Order in Council placed the administration of the western portion of the country by the Company on a firm basis; and this was closely followed by the North-Eastern Rhodesia Order in Council of 1900 with similar effect. The two Territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924, when, in terms of a settlement arrived at between the Crown and the Company, the administration of the Territory was assumed by the Crown, and the first Governor was appointed on 1st April, 1924.

The currency in use consists partly of English coinage and partly of notes of the Southern Rhodesian issues of the Standard and National Banks of South Africa, both of which have branches and agencies in this country. The coins and notes of the Union of South Africa are also current at par.

English weights and measures are employed.

There are considerable climatic differences between various parts of the country. The Zambesi, the Luangwa, and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November, before the rains break, when the mean maximum is about 97° in the Zambesi valley stations and 85° at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90.3°, with a mean minimum of 64.5°, while the corresponding figures for the four months of the cold season (May to August) are 78.7° and 46.6°. During 1926, the highest mean maximum recorded at Livingstone for any one month was 94.2° in October, and the lowest mean minimum for any one month was 75.4° in July; at the same station the absolute maximum for the year was 102.5° recorded in November, and the absolute minimum was 37.0° recorded in August. The highest temperature recorded in the territory was 109° at the Barotse National School and at Namwala, and the lowest was 30° at Solwezi.

The rainy season usually commences in November and lasts until April, after which month rain is rarely experienced and then only in negligible quantities. The rainfall during the 1926-27 season was under the normal at all stations, with the exception of a few in the more northerly parts of the country. During the months of January, February, and March, 1927, periods of drought lasting from 11 to 22 days were experienced, during which less than half an inch of rain fell. Only a narrow strip along the Anglo-Belgian border between Sakania and Mwinilunga, the Luapula valley from Kapalala to Lake Mweru and the shores of Lake Tanganyika escaped the effects of these rainless periods. The rainfall recorded at Livingstone was only 22.52 inches, while at Broken Hill, Fort Jameson, and Abercorn the rainfall amounted to 27.23, 28.04 and 50.35 inches respectively. In the western districts, 36.65 inches were recorded at Mongu and 58.37 inches at Mwinilunga.

CHAPTER I.

GENERAL.

The year under review commenced with the first Conference of East African Governors, which was opened at Nairobi on the 25th January, 1926. It was unfortunate that serious washways on the railway line between Salisbury and Beira delayed the attendance of the Governor of Northern Rhodesia until the closing days of the Conference.

The second Conference of Unofficial Representatives of the East African Colonies and Protectorates was opened by Sir Herbert Stanley at Livingstone on the 3rd September, 1926, and sat thereafter at the Victoria Falls Hotel under the presidency of Lord Delamere. Many of the delegates travelled from and back to the other East African Dependencies by motor-car, and encountered no serious difficulties *en route*.

Two important aircraft flights passed over this Territory in the early part of the year. Mr. Alan Cobham (now Sir Alan Cobham, K.B.E.), flying a de Haviland aeroplane, and accompanied by Mr. Emmott as cinematograph operator and by Mr. Elliott as mechanic, reached Livingstone *en route* for Cape Town on the 29th January. Aerodromes had been prepared for him at Abercorn, Ndola, Broken Hill, and Livingstone, and landings were made at those four places. Torrential rains caused some slight delay at Ndola, but apart from that no difficulty was experienced. This was all the more satisfactory as the flight took place at the worst time of the year. Mr. Cobham left for Bulawayo on the 31st January. The return flight being made against the clock, no landing was made at Livingstone, as Mr. Cobham took a direct line from Bulawayo to Broken Hill on the 28th February. In the following month a flight of the Royal Air Force, consisting of four Fairey seaplanes fitted with land undercarriages, under the command of Wing-Commander Pulford, C.B.E., followed the same course as that taken by Mr. Cobham. The Flight reached Livingstone on the 25th March, and left for Bulawayo four days later.

A conference was held at the Colonial Office in June between representatives of the British South Africa Company and of the Governments of Northern Rhodesia, Southern Rhodesia, and the Bechuanaland Protectorate, with a view to reaching an agreement whereby these Governments should be vested with some measure of control over the rates imposed by the Companies owning the railways which run through their respective territories. After discussion lasting several weeks, it was agreed to set up a Railway Commission consisting of a Chairman, appointed by the Governments jointly with the approval of the Secretary of State for the Colonies, and one representative of each of the three Governments. Definite provision was made for an adequate return on the capital invested in the various railway Companies, for sinking fund, for the payment of interest on loans; and, subject to these, the duty was laid upon the Commission of seeing that the rates charged by the railways were kept at the lowest possible level. The necessary legislation implementing this Agreement was passed early in 1927.

A Commission was appointed in July to make recommendations as to the demarcation of Native Reserves in the area adjacent to the railway line. Its investigations lasted for several months, and its report was still in course of preparation at the end of the year.

The Legislative Council met twice. The third Session of the First Council was opened on the 5th March, and the Council was dissolved on the following day. The First Session of the Second Council was opened on the 14th September, and was remarkable for the fact that it was the first occasion on which elected members had sat in Council.

In August, the Governor-General of the Union of South Africa and Her Royal Highness the Princess Alice, Countess of Athlone, paid an official visit to Livingstone. Prior to April, 1924, Northern Rhodesia had been in some respects under the control of the Governors-General in their capacity as High Commissioners for South Africa, and in those days visits by the High Commissioner for the time being were of comparatively frequent occurrence. But this was the first time since Northern Rhodesia had acquired her new status that a Governor-General of the Union had visited her in that capacity, and the visit was very warmly appreciated.

Another distinguished visitor to Livingstone was Sir Robert Baden-Powell, who arrived in October accompanied by the Chief Guide. Scouts and Guides came down from Bwana M'Kubwa, Broken Hill, and Lusaka, and a most successful combined Camp was held in the vicinity of the Victoria Falls in honour of the occasion. There can be no doubt that the Chief Scout's and Chief Guide's visit gave a strong impetus to the scout and guide movements in Northern Rhodesia.

The year as a whole was one of sustained activity in mining and commerce. The progress that has been made is reflected in the vital statistics for the year. No census has been taken since 1921, but the European population on the 31st December, 1926, was computed to be 5,581, of whom 2,742 were adult males, 1,326 adult females, and 1,513 children. This shows an increase of 1,400 Europeans since the 1st April, 1924. The native population is estimated to number 1,199,163, as compared with 979,704 in 1921. There are also about 70 Asiatics. Immigrants into Northern Rhodesia in 1926, exclusive of natives of Africa, numbered 756, of whom 591 were British subjects. Eighteen persons were deported, five of these being alien native criminals. No figures of emigration are available.

As regards Native Affairs, the year has been peculiarly uneventful. The long series of witchcraft murders, conducted during 1925 by an educated Nyasaland native who styled himself Mwanalesa, "Son of God," had their sequel in his execution in January together with some of his chief accomplices. Measures were taken to impress on those districts in which he had done his evil work, with the knowledge and connivance of the whole population, not only the power of the Government to deal with those who broke the law, but the duty of the individual to assist the Government in apprehending and punishing such persons.

CHAPTER II.

FINANCE.

The revenue for the year ended the 31st March, 1927, amounted to £421,035, being an excess of £67,624 over the estimate and an increase of £49,989 on the revenue for the preceding year. This excess was due to the receipt beyond the estimated amount of £17,917 by the Customs Department, £9,238 in respect of Native Tax, £15,539 in respect of Income Tax, £11,374 by the Post Office, £6,770 more Fees of Court, £1,296 from Land Sales, and an aggregate of £5,490 under other Heads.

The expenditure for the same period was £455,451, showing a saving of £13,072 on the sum authorised, but an increase of £61,306 on the expenditure of the preceding year. Savings on the estimated amounts were effected to the sums of £2,085 on European Education, £3,720 by the Department of Native Affairs and the District Administration, £1,218 on the Survey vote, £1,803 on the Judicial, Legal, and Prisons vote, £3,637 by the Northern Rhodesia Police, £7,802 under Public Works Extraordinary, and an aggregate of £2,376 under six other Heads. On the other hand, the Posts and Telegraphs vote was exceeded by £1,589, the Health vote by £1,020, the Veterinary and Agriculture votes by £1,193 and £839 respectively, the vote for Public Works Recurrent by £1,107, the vote for Pensions by £1,226, while four other Heads showed expenditure in excess of the Estimates totalling £2,595.

The following figures give the detail of Revenue and Expenditure for the year :—

Revenue.

		£	s.	d.
Head	I.—Customs	107,917	5	5
,,	II.—Licences, Taxes and Internal Revenue not otherwise classified ...	205,626	19	11
,,	III.—Fees of Court, etc.	41,142	6	8
,,	IV.—Post Office	29,484	2	3
,,	V.—Rent of Government Property ...	9,661	7	2
,,	VI.—Interest	3,880	7	3
,,	VII.—Miscellaneous	7,026	13	11
,,	VIII.—Land Sales	16,295	17	0
	Total Revenue ...	£421,034	19	7

Expenditure.

		£	s.	d.
1.	The Governor's Office	5,886	1	4
2.	Secretariat	6,409	0	11
3.	European Education	13,486	16	9
4.	Printing and Stationery	7,243	16	8
5.	Department of Native Affairs	12,885	7	9
6.	District Administration	101,897	2	3
7.	Treasury	8,652	7	5
8.	Commissioner of Taxes	1,993	10	1
9.	Customs	8,687	17	5
10.	Posts and Telegraphs	28,302	0	9
11.	Transport and Supply	—		
12.	Lands Department	14,461	7	6
13.	Survey Department	8,161	10	10
14.	Audit Office	3,045	8	6
15.	Judicial, Legal and Prisons Department ...	20,701	15	4
16.	Northern Rhodesia Police	53,069	18	2
17.	Health	38,968	18	2
18.	Veterinary Department	19,552	17	4
19.	Agricultural Department	9,832	8	3
20.	Mines and Public Works Department ...	8,355	16	5
21.	Public Works Recurrent	18,700	12	4
22.	Public Works Extraordinary	32,105	10	1
23.	Percentage of Tax payable to Barotse Trust Fund	6,300	0	0
24.	Miscellaneous Services	8,769	4	0
25.	Pensions and Gratuities	17,981	6	0
	Total Expenditure ...	£455,450	14	3

The deficit for the year, therefore, amounted to £34,416, as against an estimated deficit of £115,112. The following statement gives the financial position as at the 31st March, 1927 :—

	£
Excess of Assets over Liabilities, 1st April, 1926	209,320
Excess of Expenditure over Revenue	34,416
Excess of Assets over Liabilities, 31st March, 1927	£174,904

The following is a statement of Assets and Liabilities as at the 31st March, 1927 :—

Liabilities.	£	*Assets.*	£
Deposits	32,777	Cash	151,949
Excess of Assets over Liabilities... ...	174,904	Investments ...	2,500
		Advances	24,442
		Unallocated Stores	28,790
	£207,681		£207,681

During the last five years there have been large increases in both the revenue and the expenditure of the Territory, as the following table shows :—

	Revenue.	*Expenditure.*	*Excess of expenditure over revenue.*
	£	£	£
1922-23	258,154	338,983	80,829
1923-24	278,928	323,509	44,581
1924-25	309,795	340,327	30,532
1925-26	371,046	394,145	23,099
1926-27	421,035	455,451	34,416

It is confidently anticipated that the progress which these figures reflect will be fully maintained in the ensuing years.

In the course of the year it was announced that a loan of £10,000,000, the interest on which will be guaranteed by His Majesty's Government, would be raised, in accordance with a recommendation of the East African Commission, mainly for the improvement of communications in the East African Dependencies. Expenditure in Northern Rhodesia amounting to £225,000, which will be met in due course from the proceeds of the loan, has been approved, of which £185,000 has been apportioned to the construction of arterial roads, £5,000 to the survey of the Zambesi waterway, £2,500 to the construction of a harbour at Mpulungu at the southern end of Lake Tanganyika, and £30,000 to the establishment of a veterinary and agricultural research station. No part of the loan funds were made available during 1926; but work on all the items except the Zambesi Survey was commenced, the expenditure so incurred being met temporarily out of the general funds of the Territory.

A new Income Tax Ordinance on the lines of the legislation passed in other Colonial Dependencies was introduced at the session of the Legislative Council held in September. This did not effect any real change in the existing basis of taxation.

Two Banks operate in Northern Rhodesia: the Standard Bank of South Africa, which has branches at Livingstone and Lusaka with a sub-branch at Mazabuka, and Barclay's (Colonial) Bank, into which the old National Bank of South Africa has been merged, with branches at Broken Hill and Ndola.

The Post Office Savings Bank was established at all Post Offices at the beginning of 1926, and has made satisfactory progress. The amount deposited during the year was £3,313, and the amount withdrawn was £907. Interest paid or accrued to depositors at the 31st December, 1926, amounted to £27. A sum of £1.500 was invested on behalf of the Savings Bank during the year.

CHAPTER III.

PRODUCTION.

A. Land and Agriculture.

Of the total approximate area in the Territory of 184,288,000 acres, the North Charterland Exploration Company holds, subject to the due assignment of native reserves, a concession over 6,400,040, the British South Africa Company owns three freehold areas comprising 2,758,400 acres in the Tanganyika District, and 2,654,227 acres have been otherwise alienated for purposes of European settlement. The total area of alienated land is therefore 11,812,667 acres, about 6.4 per cent. of the whole Territory.

Most of the alienated land is used for grazing, some of it is cultivated but a large area is unsuitable for either grazing or cultivation. The following table will give a comparative idea of the acreage under the various staple crops under cultivation in the three previous seasons:—

Season.		*Maize.*	*Tobacco.*	*Wheat.*	*Cotton.*	*Total under cultivation.*
1923–24	...	42,377	3,462	1,250	2,331	52.243
1924–25	...	35,568	4,323	2,633	16,702	61.712
1925–26	...	36.470	4,939	3.387	11.849	60.297

Smaller areas were planted with fodder crops, groundnuts, beans, potatoes, kaffir corn, oats, etc., which are considered minor crops. The climatic conditions, though not so disastrous as the previous season to the European agricultural community, were again unsuitable for cotton growing on account of the late and heavy rainfall. The previous season, with its heavy rainfall, caused an increase in cotton pests, and the damage these have caused in this season has been as serious as in the previous one. The 11,849 acres planted produced but 202,511 lb. of lint, an increase, roughly, of 7,000 lb. of lint on that produced in 1925 from 16,702 acres planted.

Sums of money amounting to over £9,000 were loaned to the farmers growing cotton, half the capital of the loans being supplied by the Government and half by the Empire Cotton Growing Corporation. The granting of the loans was controlled by a committee known as the Cotton Growers' Assistance Committee. These loans enabled many settlers to plant cotton who would otherwise not have been able to do so after the two previous bad seasons, the drought in 1923-24 and the flood of 1924-25. The one purpose of the loans, the immediate production of cotton, was defeated by the climatic conditions; but it is hoped that with suitable seed cotton may be grown successfully in more favourable seasons. It appears to be a very beneficial rotation crop with maize.

There was an increase in the acreage planted with maize. This increase would have been still greater if the first rains had fallen earlier, when they are usually expected. Though there was a slight increase in the acreage under this crop the yield was almost double that of the previous season, namely, 177,428 bags of 200 lb. net as against 94,818 bags produced in the previous season.

The sale of nearly all farm-grown maize, as differentiated from the native-grown maize, is handled by a Cooperative Society. This Society has secured a contract with mines in the Belgian Congo to sell maize to them at a fair but satisfactory price. This fact has established a local maize market for the time being and has been an incentive to increased production. The consumption of maize and maize-meal at the mines to the north of the farming area and in the Belgian Congo is increasing rapidly, but it is believed that the local farmers are in a position to produce, and will produce, sufficient for all requirements.

Tobacco growing has obtained a fresh impetus since the preference for Empire-grown tobacco was re-introduced, particularly in the Fort Jameson District. Many settlers are growing tobacco who have had no previous experience, but their results are satisfactory and the results obtained by experienced growers appear to be most profitable. It is believed that considerably more farmers will plant tobacco in the future.

The acreage planted with wheat in 1925 was 2,633 acres, and in 1926, 3,387 acres. The yields were respectively 9,895 and 11,687 bags of 200 lb. net. The chief reason for the substantial increase in acreage was due to the large amount of water available for irrigation purposes after the heavy rainfall in the previous summer months. A further contributory reason was the establishment of a flour mill at the Cooperative Society's headquarters at Lusaka, which was expected to ensure increased profits to the growers.

Experiments have been continued at the Agricultural and Veterinary Experimental Station at Chilanga, but the facilities are too inadequate to allow the Government to expect valuable results. The diseases and other problems of cultivated crops and cattle are such that it is considered necessary that this should be thoroughly and methodically investigated. Therefore, the need for more land and better facilities has been so pressing that an Agricultural and Veterinary Research Station is in the process of establishment at a suitable site at Mazabuka.

The crops grown by natives are at present mainly confined to foodstuffs for their own consumption though, in certain districts, especially in the proximity of mines, additional quantities are grown for sale. Preliminary investigations have been made with a view to ascertaining whether other economic crops can be introduced to areas remote from the railway line and the mines to enable the natives to produce cash crops at their own villages. It is feared that little can be done in the matter without far more detailed investigations into the conditions and without trained demonstrators in such remote areas. At the present time agricultural education of an elementary nature is being given by various missionary societies, and grants for this purpose have been made to them by the Government.

It is realised that the building up of a sound native agricultural industry must be slow, in order to eliminate many of the risks liable to be incurred through erroneous advice due to inadequate opportunity to investigate agricultural problems in the remote areas. Further risks are liable to be incurred by sudden increase in production.

Owing to the existence of extensive tsetse fly belts, large areas of the Territory are closed to cattle. It has been found possible, however, to maintain ox-transport in the vicinity of certain of the new mining concerns, which are situated within tsetse fly belts, by the intravenous injection of sodium or potassium antimony tartrate. The palliative effect of the drug is sufficient to keep trypanosomiasis-infected cattle in work for considerable periods. Good results, in the curative treatment of the disease, still attend the administration, intravenously, of solutions of antimony tartrate and there is ample proof that, where animals are not again exposed to infection, many permanent cures are effected. The transportation of tsetse fly by motor vehicles constitutes a menace to the settled areas and calls for serious consideration.

In the Barotse district there are large numbers of cattle, almost entirely native-owned. Contagious bovine pleuro-pneumonia is enzootic in that district, but the measures in force to prevent its spread to the settled areas continue to be effective. An extensive inoculation scheme for the elimination of the disease from Barotseland is contemplated.

In the remainder of the Territory there are approximately 216,981 native-owned and 90,245 European-owned cattle, the majority of which are unimproved. Grading-up by the use of good bulls of the improved breeds is practised by the more enlightened farmers and its results are noticeable in many parts of the Territory.

Although the native, generally speaking, is conservative and apathetic on the subject of improvement of his herds, there are indications that he is beginning to take more interest in animal husbandry. Every opportunity is taken by the staff of the Veterinary Department to impart the elementary principles of animal husbandry, to emphasise the deleterious effects of inbreeding and neglect of castration, and to foster the practice of selection and general improvement. Pedigree stock, imported from the Union of South Africa, is being used by the Veterinary Department for the foundation of a herd for the supply of pure-bred and grade stock to both Europeans and natives.

Owing to the high incidence of horse-sickness, only 75 horses are kept in the Territory. There are also 21 mules and 280 donkeys. No outbreak of glanders has occurred, and all equines must pass the mallein test prior to importation.

There are approximately 40,958 sheep, 68,979 goats, and 18,199 pigs.

A considerable trade in livestock for slaughter purposes is done with the Katanga Province of the Belgian Congo. The requirements of the local markets, especially in the mining areas, are increasing annually, and the supply of slaughter cattle from Northern Rhodesia is insufficient to meet the demands of the Katanga. The highest price obtained for slaughter stock within the Territory has been 35s. per 100 lb. (dead weight) and the average price about 29s. Native stock realised 22s. to 25s. per 100 lb. (dead weight).

A creamery has been established at Choma and has met with success. The farming community is coming to realise that dairying, with its products and by-products, is a valuable adjunct to mixed farming, and although Northern Rhodesia still imports dairy produce the local output is increasing.

The settled areas of the country are free from any of the sweeping epizootic cattle diseases. Energetic veterinary police measures have been successful in preventing the invasion of rinderpest from the north, East Coast Fever from the south, and contagious bovine pleuro-pneumonia from the west. Sporadic outbreaks of anthrax and quarter-evil occur, but they are promptly suppressed by quarantine, proper disposal of carcasses, and vaccination and inoculation. Skin diseases of stock yield to regular dipping, and dipping is responsible, too, for maintenance and improvement in the condition of cattle.

Apart from the Fort Jameson District of North-Eastern Rhodesia, in which a few cases of tuberculosis have come under notice, this Territory would appear to be practically free from this disease. This latter fact may be regarded as one of the most valuable pastoral assets of the greater part of the Territory.

Some loss occurs from indigenous diseases of cattle, and experimental work on their incidence, aetiology, transmission, and treatment is being done. The elimination of these diseases would facilitate the process of grading-up by means of pedigree stock already referred to.

It is being more and more realised that Northern Rhodesia is a valuable cattle country and that, by means of paddocking and sound methods of herding, farms can be made to carry more stock according to their acreage than has hitherto been considered possible.

B. Mining.

Though more mines were actually producing during the year under review than was the case in the preceding year, the period was again rather one of energetic development and investigation, the full results of which are not likely to be apparent for some years. The general position remains extremely hopeful.

The Rhodesia Broken Hill Mine produced lead, zinc, silver, and vanadium. The Jessie Mine produced gold and a small quantity of silver. The Bwana M'Kubwa Mine, though handicapped by certain unforeseen difficulties in making the new plant entirely effective, recommenced the production of copper. The Sachenga, Star 2, and Camarnor Mines produced small quantities of mica, zinc ore, and vanadium ore respectively. Considerable development work was also done at the Broken Hill, Bwana M'Kubwa, Nkana, Nchanga, Mtuga, and Roan Antelope Mines; and the Rhodesia Congo Border Concessions, the Rhodesia Minerals Concessions, and the Camarnor Syndicate carried out intensive prospecting operations.

The producing mines employ some 640 Europeans and 5,700 natives; but there are probably another 180 Europeans and 4,000 natives employed on the prospecting operations.

The following is a statement of the actual production for the year together with the value of the minerals produced :—

	Value. £
Gold (778 ounces)	3,238
Silver (114 ounces)	11
Copper (708 tons)	27,353
Lead (3,835 tons)	68,570
Mica (3½ tons)	833
Zinc (235 tons)...	3,766
Zinc Ore (485 tons)	1,745
Vanadium (26 tons)	6,044
	£111,560

In addition, the industry was credited with £988, the value of silver contained in lead mined in 1924 and 1925, and with £40,676 in respect of vanadianite produced in 1925. Adjustments were also made in lead values in respect of 1924 and 1925 production amounting to £162,167, and in zinc values in respect of 1925 production amounting to £2,665.

Preparations were made by the Rhodesia Congo Border Concession Company for an aerial survey over a large portion of their concession area, and the survey was to be commenced as early in 1927 as climatic conditions allowed.

C. Industry.

The only industrial establishment in the Territory, at present, is the Zambesi Saw Mills, Limited, which has a sawing plant at Livingstone. The Company has been granted concessions over certain forest areas to the north-west of Livingstone, and the timber cut therein is brought down to the mills by means of a light railway some 40 miles in length. The Company has a contract for supplying sleepers to the South African Railways, and it also supplies most of the requirements of the Rhodesia Railways. Forty-five Europeans and about 1,500 natives are now employed in this industry.

There is a fishing and fish-curing industry carried on by natives on the banks of Lakes Mweru and Bangweulu. A ready market for dried fish is found on the Katanga Mines and with one or two European traders who are established in the vicinity, and the industry, though naturally limited, continues to flourish. There is also a small trade in dried fish on the Kafue River near the railway line and in the Zambesi valley. Natives in the swamps to the south of Lake Bangweulu carry on a considerable trade in otter skins. There is also a native salt industry in the Mpika and Chiengi sub-districts, and to a lesser extent in the Kasempa sub-district; while in various districts a considerable trade in native tobacco is carried on. But the fact remains that, apart from the limited activities noted above and the production of food crops, the old native industries have been killed by the importation of articles of European manufacture. It is not worth while to smelt iron nowadays when scrap iron can be picked up anywhere. Pottery has been replaced by the enamel basin and jug, and other industries have suffered in the same way. There is no longer a market for the old native trade goods: they have passed out of date.

CHAPTER IV.

TRADE AND ECONOMICS.

Northern Rhodesia is in the curious position of being divided into two Customs zones. The northern zone, which is known as the Congo Basin zone, is governed by the conditions of the Berlin Act of 1885. Goods imported into this zone, therefore, are not subject to the terms of the Agreement with Southern Rhodesia and the Union of South Africa, though the duties imposed are in almost all instances similar to those imposed in the southern zone, except that equality of trade is granted to all nations. The Zambesi Basin zone, as the latter is called, is subject to Customs Agreements with Southern Rhodesia, with the Union of South Africa, and with the High Commission Territories of Bechuanaland, Basutoland, and Swaziland. Under the existing Agreement, Northern Rhodesia receives 12 per cent. *ad valorem* on removals from the Union of South Africa of imported goods, and 6 per cent. on removals of South African manufactured goods; unmanufactured produce of South Africa is not subject to duty. The Union of South Africa charges the actual duty at Union rates on removals from Northern Rhodesia of imported goods, but allows entry to Northern Rhodesia produce free of duty. The minimum sum payable by the Union to this Territory is £12,500 per annum.

The following table shows the value of the imports and exports for the year 1926 from and to other countries, and also the corresponding figures for the preceding year :—

	1926.		*1925.*	
	Imports.	*Exports.*	*Imports.*	*Exports.*
	£	£	£	£
Union of South Africa ...	166,001	161,439	97,648	127,130
Southern Rhodesia ...	258,884	65,543	171,482	34,916
United Kingdom and other British Possessions.	818.718	142,761	760,017	91,900
Total British Empire ...	£1,243,603	£369,743	£1,029,147	£253,946
Foreign Countries ...	423.981	112.728	254,878	178,046
Total Merchandise ...	£1,667,584	£482,471	£1,284,025	£431,992

This shows the percentage of trade to be :—

	1926.	1925.
	Per cent.	Per cent.
Union of South Africa	9.96	7.60
Southern Rhodesia	15.52	13.36
British Empire	49.1	59.19
Total British Empire	74.58	80.15
Foreign countries	25.42	19.85
	100	100

The gross Customs and Excise revenue for the year amounted to £102,254, an increase of £16,687 on the figure for 1925.

The principal articles imported during 1926 were :—

	£
Animals (Living)	44,530
Foodstuffs	148,733
Ales	54,088
Ales (Non-potable)	474
Tobacco	27,519
Textiles	376,527
Metals	576,982
Minerals	104,515
Oils	76,482
Drugs	55,580
Leather	30,522
Wood	56,087
Books	19,703
Jewellery	24,470
Miscellaneous	71,372
	£1,667,584

The principal articles exported were :—

	£
Animals (Living)	52,606
Hides, Skins, and Horns	15,591
Ivory	7,117
Butter	1,219
Maize	31,246
Wheat	18,575
Maize Meal	10,566
Pulse	497
Tobacco (Unmanufactured)	155,832
Cotton (Raw)	4,746
Ores—	
Copper	23,566
Lead	43,284
Vanadium	4,498
Other	2,047
Gold	2,697
Silver	16
Lime	1,072
Timber (Unmanufactured)	64,794
Curios	505

CHAPTER V.

COMMUNICATIONS.

A. Railways.

The principal means of communication is the railway, which, after leaving Livingstone, runs in a north-easterly direction, dividing the country into two nearly equal portions. It is owned partly by the Rhodesia Railways Company, partly by the Mashonaland Railway Company, and partly by the Rhodesia-Katanga Junction Railway and Mining Company, but it is run under the same management as the Beira and Mashonaland Railways, and, together with these, forms in effect a single railway system which stretches from Vryburg in Bechuanaland and from Beira in Portuguese East Africa through Southern Rhodesia and through Northern Rhodesia to Sakania in the Belgian Congo. A single line enters the Protectorate by means of a remarkable bridge spanning at a height of nearly 400 feet the River Zambesi at the gorge some 200 yards below and within sight of the Victoria Falls; it passes Livingstone, crosses the Kafue at the station of that name, and enters the Belgian Congo slightly north of Ndola. The total length of line within the Territory is 507 miles, and there are no branch lines.

B. Roads.

With the exception of the short road known as the Jameson Road from Livingstone to the Victoria Falls, a distance of seven miles, and the private road of the Broken Hill Mining and Development Company leading from their plant and mine to the hydro-electric power station on the Mulungushi River, some thirty-six miles away, there are no macadam-constructed roads in the country, and these only can be described as "all-weather" roads. All the other roads are earth-roads, and though the smaller rivers are bridged with bush-timber bridges, and the roads embanked and sometimes gravelled where they cross marsh land, traffic is liable to be interrupted for at least two months in the year, usually in February and March.

In the last two years the mileage of roads passable for from eight to ten months in the year has very considerably increased; and, during the season when they are open, these roads compare very favourably with roads in Southern Rhodesia or the Union of South Africa. The following are the main lines of road now open:—

The Great North Road runs from the Victoria Falls via Livingstone, Mazabuka, Lusaka, Broken Hill, Serenje, Mpika, Chambesi River, where the crossing is effected by pontoon, and Kasama to Abercorn, a distance of about 1,000 miles. It is intended to effect a junction between this road and the Tanganyika road system, and it will then provide direct communication between East and South Africa.

The Rhodesia-Congo Border Road leaves the Great North Road at Kapiri Mposhi, and runs in a north-westerly direction via Ndola, Nkana, and Nchanga to Solwezi, a distance of about 312 miles. A branch road gives access to the Belgian Congo and Elisabethville.

From Solwezi a road runs in a south-westerly direction to Kasempa. It is proposed to extend this to Mumbwa, which is already connected with the Great North Road.

A road, known as the Great East Road, is in course of construction from Lusaka to Fort Jameson, and it is hoped to complete this by the end of 1928.

Communication with the Mweru-Luapula District is maintained by a road that crosses the *pedicule* of the Belgian Congo from Ndola to Kapalala.

All these roads have numerous branches leading to farms, mission stations, or other points of European settlement in the various districts through which they pass.

The authorisation of the East African Loan, in which Northern Rhodesia will share, has made possible the production of a comprehensive scheme of arterial road construction, which will include the improvement of the roads mentioned above. The development of the six-wheeled lorry and the roadless tractor is being watched with interest: and it is anticipated that the next few years will see a complete revolution in the existing transport position. Very great development is to be expected in all branches of communications.

C. Posts, Telegraphs, and Telephones.

A line carried over the Railway Company's poles affords telegraphic communication between the Victoria Falls Bridge and the Belgian Congo and between the intervening stations. The line from Livingstone to Broken Hill is double, while the remainder is single, the total length of wire being 894 miles. There is also a telegraph line from the Nyasaland border to Abercorn, and another from the same border further south to Fort Jameson; the length of wire, which is single, being 149 and 6 miles respectively. Abercorn is also connected with Kasama by telephone, a distance of 100 miles.

A telephone service exists at Livingstone, and this is to be extended in the near future, as the demands for telephonic facilites have far outgrown those which the Post Office can provide. There is a trunk line from Livingstone to the Victoria Falls Hotel on the Southern Rhodesian side of the Zambesi.

Postal work shows a considerable increase and once more reflects the progress that the country has made. During the year, stamps and embossed stationery were sold to the value of £13,492, as compared with £12,883 in the preceding year. Money orders were issued to the value of £29,488, and £19,648 was paid out in respect of money orders issued elsewhere. The corresponding figures for the preceding year were £24,770 and £16,240. Postal orders issued numbered 35,448 and were worth £19,895, while £7,843 was paid out in respect of 13,429 postal orders. The cash-on-delivery system was used by an increased number of persons, and 2,534 packets, valued at £10,105, were dealt with under it. 13,483 articles were undelivered and passed through the Returned Letter Office. The following table shows the quantities of the various kinds of mail matter received and despatched during the year as compared with the figures for the preceding year :—

Received.

	1925.	1926.
Letters	1,081,340	1,489,982
Postcards	25,688	22,308
Newspapers	392,080	401,540
Bookpackets	191,048	354,042
Parcels	34,996	33,370
Registered articles	32,916	37,154

Despatched.

	1925.	1926.
Letters	1,108,226	1,464,696
Postcards	32,376	33,540
Newspapers	49,400	54,574
Bookpackets	126,880	124,418
Parcels	8,944	6,162
Registered articles	29,900	34,984

CHAPTER VI.

JUSTICE, POLICE, AND PRISONS.

Justice is administered by the High Court of Northern Rhodesia, and by the Magistrates' and Native Commissioners' Court, subject to appeal to and review by the High Court.

During the year, the High Court dealt with 89 civil matters, as against 57 in the preceding year, and heard eight actions and two appeals. Two petitions in bankruptcy were presented. Sessions were held at Broken Hill in January, at Mazabuka in October, and at Kalomo and Choma in November. Fifteen criminal cases came before the Court, exclusive of reviews of judgments in the lower Courts. These latter numbered 329, of which 161 were confirmed, 39 quashed, 83 altered, one sent back and subsequently approved, two returned with direction as to sentence; in the remaining 43 cases the accused were bound over.

The Criminal Investigation and the Town and District branches of the Northern Rhodesia Police were involved in 3,715 prosecutions, as compared with 3,476 in 1925. In addition to these, a few cases are tried at stations where there are no Police; nor do these figures include the very large number of prosecutions for offences against the Native Tax Law.

The following figures show the convictions for the more serious crimes :—

Murder	39
Manslaughter	8
Arson	7
Forgery	12
Perjury	10
Housebreaking	21
Burglary	8
Rape, attempted rape, and assault with intent to rape	16
Indecent assault	15
Assault causing bodily harm	117

Thirty-two out of the thirty-nine sentences of death were commuted to various terms of imprisonment. In the remaining seven cases the law took its course.

Of the total number of persons accused of crime, 92 per cent. were convicted.

There are five central prisons, at Livingstone, Broken Hill, Fort Jameson, Kasama, and Mongu; and there are 30 local prisons at various out-stations. During the year, 5,933 persons were committed to prison, 35 of whom were to serve sentences of five years or more. The daily average of persons in prison was 691. Thirty-six deaths occurred among the prisoners.

CHAPTER VII.

PUBLIC WORKS.

During the year 1926-27 the sum of £32,105 was spent on construction. The only buildings of any importance that were completed during this period were the Legislative Council Chamber and the new block of offices for the Judicial and Legal Departments. Both of these buildings were very badly needed in Livingstone.

As regards road construction, the most important work was done on the track of the Great East Road from Lusaka for a distance of 140 miles. Six permanent bridges, averaging over 100 feet in length, were constructed.

A permanent iron bridge was constructed over the Maramba River, which has enabled communication by road between Livingstone and the Victoria Falls to be continuous throughout the year, whereas formerly it was apt to be interrupted during three or four months of the wet season. A similar bridge was constructed over the Chichikwenkwe and Mulungushi Rivers on the Great North Road.

A permanent pontoon capable of carrying 1,500 pounds was constructed over the Lunsemfwa River on the Broken Hill-M'kushi road. A considerable amount of road work has been done by the Mining Concession Company with the object of bringing up communications between the railway line and the more important points in their respective areas.

CHAPTER VIII.

PUBLIC HEALTH.

During the year, 778 Europeans and 6,434 natives were treated in hospital, and there were 28 and 326 deaths respectively among these. Complete returns of out-stations are not available for either European or native population. Native patients at out-stations number 5,000. A very large proportion of these are treated for trivial complaints. A localised outbreak of sleeping sickness occurred in several villages on the Mwangazi River south of Fort Jameson and near the Portuguese Border. Twelve cases of trypanosomiasis were found and the villages were moved from fly area to a fly-free area. No further cases have been reported among these people since they were moved. Of the 12 cases treated in the Fort Jameson Hospital, 4 died, 1 suffered a doubtful relapse, and 7 were apparently cured. Three other cases of trypanosomiasis occurred in the neighbourhood of Msoro, but it was not possible to find whence the infection had come.

During the year, 262 persons were admitted into hospital with malaria and 21 with blackwater fever, one of the former and seven of the latter died. The admissions for the previous year were 211 and 13 respectively. The increased admission rate may be accounted for partly by the increase in population, partly by the ignorance and carelessness of a number of immigrants, who were also compelled by circumstances to live in unsatisfactory conditions, and partly by the very heavy rainfall of the previous season in certain parts of the country, which resulted in the breeding of mosquitoes on an unusually large scale.

Influenza has been endemic throughout the Territory and in a few instances it assumed epidemic proportions amongst the native population over limited areas. This disease has persisted since the severe 1918 epidemic, especially at Broken Hill, where it has manifested peculiar characteristics.

Treatment of yaws with bismuth and sodium tartrate has been actively carried out and is being gradually exterminated by the help of various missionary societies and trained native orderlies. The high prevalence of the disease is in the Kasempa, Kafue, and Luapula areas.

The outbreak of smallpox which had occurred in the Mweru-Luapula district in 1925 continued in 1926 and 291 cases were reported. Five cases also occurred at Broken Hill and ten were reported from the Mwinilunga sub-district.

Ankylostomiasis is widely distributed but it has not been possible to carry out a comprehensive survey or to institute intensive treatment except over restricted areas. As an indication of its prevalence, the routine examination of a single stool by the flotation method in 193 native patients irrespective of disease in the Livingstone Hospital showed ankylostoma ova in 89.9 per cent. Treatment with carbon tetrachloride is being carried out at various centres.

General health of the European population remained good. Sixty-two deaths occurred in 1926, being a death-rate of 11.1 per 1,000. Seven infants in one year died, which represents 49.3 per 1,000 of the total birth-rate for the year. One hundred and forty-two children were born, 69 being males and 73 females, which represents a crude birth-rate of 25.4 per 1,000. Of 369 officials resident in the Territory in 1926, 54 appeared on the sick list, with a total number of days on the sick list of 735. One officer died from general peritonitis due to injury.

CHAPTER IX.

EDUCATION.

European Education.

There are six Government schools, five farm schools, and one aided school, of which all, except one at Fort Jameson, are situated on or near the railway line. Two of the Government schools, those at Kalomo and Mazabuka, have boarding houses attached to them with accommodation for 44 children.

Twenty-five teachers were employed in the schools. The total enrolment at all schools at the close of the school year, 16th December, 1926, was 417, of whom 215 were boys and 202 girls, an increase of 20 in the number at the 31st December, 1925.

Native Education.

The year 1926 was occupied mainly in initiating and developing among the various missionary societies the policy decided on after the meeting of the Advisory Board in July, 1925. The most pressing requirement was and continues to be the training of competent native teachers and instructors. Until this is achieved, general progress on a large scale is impossible.

A meeting of the Standing Committee of the Advisory Board was held at Livingstone in November. Some of the chief matters discussed were the allocation of grants-in-aid of educational work for the year 1926, the exemption from tax of school pupils, the education of half-caste children, the native welfare scheme at Broken Hill, and the examination for teachers' certificates.

One District Advisory Board has been established for the Mweru-Luapula District with the District Commissioner as Chairman. The Director of Native Education met this Board, which included representatives of five different Societies, at Mbereshi in December.

The Native Reserves Commission, which was travelling during the months of September and November, took evidence with regard to educational problems from many members of the community, and its report, which is not yet published, will be of considerable interest.

An attempt has been made to inaugurate a Welfare Scheme with facilities for education and recreation for the natives of Broken Hill, but it has not been possible to proceed with it immediately owing to the Mine not being ready to cooperate.

The school of agriculture and animal husbandry which the Dutch Reformed Church started at their Magwero Station in the Fort Jameson District is now well established and promises to do useful work.

In the absence of an inspectorate, Government supervision for the year has had again to be confined to such visits to mission stations as the Director of Native Education was able to make. He visited the Barotse District and some of the North-Eastern Districts.

The outlook for Native Education is distinctly hopeful, since the wish for improvement is undoubtedly present among the natives and the will to help them has been made manifest and is increasing.

CHAPTER X.

LANDS AND SURVEY.

During 1926, 193 inquiries regarding land settlement in Northern Rhodesia have been received, but only three of these came from the United Kingdom. In addition to the above, 127 inquiries were dealt with for surveyed plots at sidings and townships, 13,992 acres were alienated in permit of occupation, the total purchase price being £2,754. Twenty-five titles to farms were issued during the year in respect of 93,728 acres and 19 titles to township plots. Thirty-six plots were leased and 27 other leases were issued in respect of areas of land. Two of these were leased to the Zambesi Saw Mills, Limited, covering an area of approximately 1,400 square miles, over which the Company is entitled to cut timber upon payment of royalty.

Survey work was done at Lusaka in connexion with a scheme for draining the compound, which is apt to be flooded during the wet season. An inspection of Boundary Pillars I-XII on the Anglo-Belgian Boundary was effected. A special survey was required by the Native Reserves Commission and an additional surveyor was engaged for this specific work. Residential plots at Livingstone, Lusaka, Kapiri Mposhi to the number of 103 were surveyed and also certain farms where a demarcation of boundaries was to be opened.

There has been no geological survey other than that done by the mining companies in the course of their prospecting operations.

CHAPTER XI.

LABOUR.

The increased activity in the mining world has provided the native population with opportunities for work within Northern Rhodesia which were formerly lacking. The inevitable effect of the increased demand for native labour is to make it necessary to offer at least as attractive conditions as the native can obtain in other places. It is satisfactory to be able to report that the mines in this Territory offer sufficiently attractive conditions in the way of wages, rations, and housing to enable them to obtain all the native labour that they require without having to resort to recruiting organisations. The same cannot be said of the farmers, but in present circumstances it would be almost impossible for many farmers to offer the same standard as is to be obtained on the mines. There is sufficient labour available in the Territory to serve all the mines and farms if the conditions are made sufficiently attractive. In the East Luangwa District a number of Nyasaland natives have sought employment, but speaking generally the Nyasaland native appears to prefer to make the longer journey to Southern Rhodesia to working on the East Luangwa farms. The railways and their various contractors have little difficulty in obtaining local labour. The wages offered are good and a generous scale of diet attracts and retains labour. Apart from those who find work within the Territory, a considerable number prefer to take their labour to other markets. The Rhodesian Native Labour Bureau is permitted to recruit a limited number of Northern Rhodesia natives for work in Southern Rhodesia, and Messrs. Robert Williams and Company a rather larger number for the copper mines in the Katanga District of the Belgian Congo. These recruiting organisations are subject to conditions which ensure that natives recruited by them will not only be well looked after on their journey to and from their place of work, and during the time spent there, but also will receive a certain proportion of their wages in the form of deferred pay which they get on return to their homes, so that they do not return with nothing to show for their labour and their absence. During 1926, the Rhodesian Native Labour Bureau recruited 4,882 Northern Rhodesia natives and repatriated 7,104; while Messrs. Robert Williams and Company recruited 4,609 and repatriated 6,376. The natives so repatriated by these two organisations received £54,295 in deferred pay. Probably an equal number of natives leave the country to find work voluntarily, i.e., not under the auspices of a recruiting organisation, and travel to Tanganyika Territory, to the Belgian Congo, to Southern Rhodesia, and even to the mandated territory of South West Africa in search of work and, very likely, in the hope of adventure.

CHAPTER XII.

MISCELLANEOUS.

The First Session of the Second Legislative Council was opened on 14th September, 1926, and sat until 28th September. Twenty-three Ordinances were passed, of which one, the Maize (Local Option) Ordinance, was disallowed until its necessity had been thoroughly proved.

Of the other Ordinances passed, the more important were the Northern Rhodesia Police Ordinance, largely a consolidating measure, the Income Tax Ordinance, which was introduced for the purpose of assimilating as far as possible the Northern Rhodesia Income Tax legislation to the provisions of the Model Ordinance proposed by His Majesty's Government for general adoption in the non-self-governing Colonies, Protectorates, etc., and the Civil Servants Ordinance, introduced to replace the Ordinance passed at the 1925 Session, which, it was found, gave insufficient protection to certain existing rights. Of the remaining Ordinances, some were small amending Ordinances designed to rectify imperfections in previous legislation, and of the others several were introduced in order to meet wishes expressed in the last Legislative Council.

C. H. DOBREE,

Acting Chief Secretary.

LIVINGSTONE,

2nd February, 1928.

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NORTHERN RHODESIA.

ANNUAL REPORT, 1927.

PREFACE.

The territory known as the Protectorate of Northern Rhodesia lies between Longitudes 22°E. and 33° 35′E. and between Latitudes 8° 15′S. and 18°S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South West Africa; comprising in all an area that is computed to be about 278,950 square miles. The River Zambesi forms the greater part of the southern boundary; its two main northern tributaries are the rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

Very little is known of the history of the native population until quite recent years. It is conjectured that the various movements of the Bantu people from the north, starting perhaps 2,500 years ago, crossed and recrossed what is now Northern Rhodesia. Whether these movements, in their effect on this portion of Central Africa, were migratory or predatory, whether they found any aboriginal inhabitants or traversed an uninhabited forest, whether they resulted in any form of settlement or merely passed to other parts of Africa, is alike unknown. All that can be said is that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambesi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Inroads from the north were frequent as well as from the south, whence came the Angoni, a branch of the warlike Zulu, in the middle of the 19th century. At the present time statistics are available of seventy different tribes resident in the Territory, of which the most important are the Awemba (108,310), Achewa (71,488), Angoni (49,131), and Awisa (46,549) in the eastern districts; the Barotse (110,079), Batonga (95,818), Balenge (39,675), Balala (38,495), Balovale (31,173), and Bakaonde (30,182) in the western districts; and the Asenga (62,385) and Alunda (56,609), members of whom are resident in both eastern and western districts. There are said to be 38 distinct native languages in use, of which Chiwemba and Chinyanja have been adopted for educational purposes in the eastern districts, and Chitonga (closely allied to Chila) and Sikololo in the western. In addition to these, Chinyanja is in use as the official language of the Police, and is probably the language most generally spoken by Europeans; it is really a Nyasaland language—the word means " Language of the Lake "—but it is also spoken to some extent round Fort Jameson.

The earliest recorded information about Northern Rhodesia is contained in the diaries of the Portuguese Governor of Sena, Dr. Lacerda, and of his chaplain, Pinto, who led an expedition in 1798 from Tete into Kasembe's country, close to the eastern shore of Lake Mweru. Little more is known of the history of the country until the arrival of Dr. Livingstone in 1855, when he visited the Victoria Falls and travelled through Barotseland. But, in the interval, Arab inroads from the north had occurred, and the slave trade which they established continued unchecked until 1893. This baleful influence had gradually spread from the shores of lakes Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in that year the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the lake shores were destroyed; Sir Harry Johnston defeated the Arab Chief Mlozo at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the East Coast, was released at Fort Jameson in 1898. Even after that, bands of slave-traders were occasionally encountered on the north-east boundary, and skirmishes with them took place as late as 1900; but, with the final establishment of the administration of the British South Africa Company, the slavers quickly disappeared from the country.

Previous to 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland—North-Western Rhodesia Order in Council placed the administration of the western portion of the country by the Company on a firm basis; and this was closely followed by the North-Eastern Rhodesia Order in Council of 1900 with similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924, when, in terms of a settlement arrived at between the Crown and the Company, the administration of the Territory was assumed by the Crown, and the first Governor was appointed on 1st April, 1924.

The currency in use consists partly of English coinage and partly of notes of the Southern Rhodesia issue of the Standard Bank of South Africa and Barclays Bank (Dominion, Colonial, and Overseas), both of which have branches and agencies in this country. The coins and notes of the Union of South Africa are also current at par.

English weights and measures are employed.

There are considerable climatic differences between various parts of the country. The Zambesi, the Luangwa, and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November, before the rains break, when the mean maximum is about 97° in the Zambesi valley stations and 85° at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90.3°, with a mean minimum of 64.5°, while the corresponding figures for the four months of the cold season (May to August) are 78.7° and 46.6°. During 1927 the highest mean maximum recorded at Livingstone for any one month was 93.8° in October, and the lowest mean minimum for any one month was 44.3° in June; at the same station the absolute maximum for the year was 102.6° recorded in November, and the absolute minimum was 36.6° recorded in May. The highest temperature recorded in the Territory was 116° at the Barotse National School in October, and the lowest was 22° at Sesheke in July.

The rainy season usually commences in November and lasts until April, after which month rain is only rarely experienced and then in negligible quantities. Final figures for the 1927-28 season are not yet available but it appears that the fall in Livingstone and along the Railway Strip to Broken Hill was under normal. In practically all districts the commencement of the rains was later than usual, but, after the rains set in, there were no prolonged droughts such as were experienced during the wet season 1926-27. The rainfall recorded at Livingstone was 19.17 inches; at Broken Hill, 31.42 inches; Fort Jameson, 41.82 inches; and at Abercorn 44.17 inches. In the western districts 55.51 inches were recorded at Mwinilunga and 46.36 inches at Mongu. Minor earth tremors were felt at various places in the Territory.

I.—GENERAL.

The year under review saw the first change in the Governorship of the Protectorate since the Crown assumed its administration in April, 1924. Sir H. J. Stanley, K.C.M.G., the Territory's first Governor, was appointed Governor of Ceylon and he left Northern Rhodesia on 25th July to take up this post, being succeeded on 31st August by Sir J. Crawford Maxwell, K.B.E., C.M.G., Colonial Secretary of the Gold Coast. Prior to his departure for Ceylon Sir H. J. Stanley had been on leave in the United Kingdom and during this period and pending the arrival of Sir J. C. Maxwell Mr. R. A. J. Goode, C.M.G., C.B.E., acted as Governor of the Territory.

In January Sir P. J. Macdonell, who had been Judge of the High Court since 1919, left the Territory for Trinidad, being succeeded by Mr. E. R. Logan, Chief Justice of the Bahamas, who assumed his duties here on 1st May. Mr. E. S. B. Tagart acted as Judge of the High Court pending Mr. Justice Logan's arrival.

The Territory suffered a severe loss by the death, in January, from enteric of Mr. G. D. Clough, O.B.E., Attorney-General. He was succeeded by Mr. F. Gordon Smith, formerly Assistant Attorney-General, who returned to this Territory from Kenya Colony.

Sir H. J. Stanley, Governor of Northern Rhodesia, represented the Protectorate at the Colonial Office Conference which was held in London on 10th May and subsequent days.

The Third Conference of Unofficial Representatives of the East African Colonies and Protectorates was held at Nairobi in August. The only representative of Northern Rhodesia who was able to attend was Captain T. H. Murray, M.C. Among the subjects discussed were Inter-Colonial Co-ordination, Colonial Office Control, European Settlements, Railways, Roads and Bridges, Native Policy, Imperial Preference, Research, Forestry, Fuel Oils, Aviation, and European Education.

In March, four machines of the South African Air Force passed over the Territory, calling at several stations, and in April these returned together with four machines of the Royal Air Force in Egypt, the latter returning to Egypt alone in May. It is understood that these flights will be made annually by both Forces. Lieutenant Bentley, in the course of his solo flight from London to Cape Town in the "Star" Moth in September, alighted at various places in the Territory.

The Railway Commission to which reference was made in last year's report came into being as a result of the Railways Ordinance, 1927, and has its Headquarters in Bulawayo. Mr. R. A. J. Goode, C.M.G., C.B.E., who had been Chief Secretary for Northern Rhodesia and Acting Administrator or Governor's Deputy on many occasions, was appointed as Northern Rhodesia's representative. Mr. Goode has since been created a Knight Bachelor by His Majesty in the New Year (1928) Honours.

Continuing the policy of demarcating Native Reserves in the Territory, a Commission sat during the year under the presidency of Mr. J. Moffat Thomson to make recommendations as to land in the Tanganyika District where the British South Africa Company have extensive land rights. Its report has been prepared but its recommendations have not yet been published.

The Legislative Council met three times, the second Session of the Second Council being opened on 11th February, 1927, and succeeding Sessions on 8th July and 25th November.

Conferences held during the year included a Veterinary Conference in August, at Livingstone, between representatives of Northern Rhodesia, Southern Rhodesia, and the Belgian Congo, on the question of cattle transit through Northern Rhodesia, and a Missionary Conference in July at Livingstone. The first Conference of Senior Political Officers to be held in the Territory took place in November, 1927, when numerous questions of importance in connection with native administration were discussed.

In August the Right Honourable L. S. Amery, M.P., Secretary of State for Dominion Affairs, paid a short visit to Livingstone. Another distinguished visitor was Sir Edward Grigg, K.C.V.O., C.M.G., D.S.O., Governor of Kenya Colony, who visited Livingstone in August.

Some members of the Empire Chambers of Commerce Congress visited Livingstone in October from the Victoria Falls.

The year has seen a continuance of the mining and commercial activity which was noted in 1926, and the progress made is reflected in the vital statistics for the year. No census has been taken since 1921, but the European population on 31st December, 1927, was computed at 7,275—3,492 adult males, 1,908 adult females, and 1,875 children. This shows an increase of 3,090 Europeans since 1st April, 1924. The native population is estimated to number 1,237,486, as compared with 1,199,163 in 1926, and 979,704 in 1921. There are also between 70 and [illegible] Asiatics. Immigrants into Northern Rhodesia in 1927, exclusive of natives, numbered 1,038, of whom 924 were British subjects. The following comparative figures of immigration are indicative of the increasing progress being made by the Territory, the figures representing only those who entered the Territory for residence and not including visitors :—

1923.	*1924.*	*1925.*	*1926.*	*1927.*
260	438	474	756	1,038

Twenty persons were deported, sixteen having criminal records, three being indigent, and one illiterate. Of these, ten were natives. No figures of emigration are available.

As regards native affairs, the year has been quiet and uneventful but there are signs of progress having been made in various directions. As an example, it is clear that the native mind is becoming more receptive as regards medical treatment and in this and other ways the native psychology is being cultivated and advanced. The measures adopted in dealing with the followers of Mwanalesa, to whom reference was made in last year's report, appear to have been entirely successful and the native population has been peaceful and law abiding.

II.—FINANCE.

The revenue from all sources for the year ended 31st March, 1928, was appreciably greater than that for the preceding year, the increase being approximately 12½ per cent. on the previous year's total of £421,035 without any material change in the basis of taxation. Revenue from Customs duties was about 35 per cent. larger, while the receipts from income tax rose from £65,539 in 1926-27 to £75,028 in 1927-28. There was a considerable advance in the number of income tax assessments. On the 1st January, 1928, the Motor Traffic Ordinance, 1927, came into operation and was instrumental in increasing the revenue from licences, taxes, and internal revenue. Generally speaking the revenue from licences was higher than in 1926-27, which is accounted for by a steady increase in the Territory's European population. The receipts falling under the head of Fees of Court or Office, etc., were lower than in the previous year, the chief reason for this being that as from the 1st April, 1927, the Service pensions of civil servants ceased to be on a contributory basis. The revenue from the Post Office was buoyant and a marked increase of business has to be recorded in all branches of the Posts and Telegraphs service. There was a somewhat larger revenue than in the preceding year from the rents of Government property. As the Government had smaller surplus cash balances at its disposal in 1927-28 than in the previous year there was some decline in interest. Miscellaneous receipts exceeded those of 1926-27, chiefly owing to the sale of heavy stocks of ivory. The revenue from land sales was greater than in the preceding year, mainly by reason of a keener demand for township plots.

The expenditure for 1927-28 was estimated at £518,666 and this figure has been slightly exceeded. The increase over the expenditure of £455,451 for the year 1926-27 represents a percentage increase of about 14 per cent. Services rendered to the public account for a considerable part of the increase, the expenditure on European Education, the Posts and Telegraphs Department, Civil Police, and Health being appreciably greater than in the preceding year. The expenditure under the head Public Works Annually Recurrent was also much heavier than in 1926-27 owing to the necessity of maintaining a larger mileage of roads and to the heavy cost of the maintenance and repair of Government buildings. The largest increase was, however, under the head Pensions and Gratuities, and is mainly due to the somewhat large number of civil servants who retired during the year and commuted part of their pension for a gratuity of ten times the amount of the surrendered portion. In this way a sum of over £10,000 was disbursed in gratuities in addition to an increase in the amount expended in pensions to a greater number of retired officers. A further reason for the increase in expenditure was the considerably larger programme of extraordinary expenditure on public works.

Nevertheless, the deficit for the year will be about £15,000 less than was originally estimated. A comparative schedule of revenue and expenditure for this and the previous year is appended.

STATEMENT SHOWING THE ACTUAL EXPENDITURE TO THE END OF MARCH, 1928.

Head of Expenditure.	*Actual Expenditure to 31st March,* 1928.
	£
1. The Governor	5,937
2. Secretariat	6,660
3. European Education	15,801
4. Printing and Stationery	6,370
5. Department of Native Affairs	13,244
6. District Administration	104,380
7. Treasury	9,242
8. Income Tax	2,178
9. Customs	11,543
10. Posts and Telegraphs	31,331
12. Lands Department	14,547
13. Survey Department	9,643
14. Audit	2,868
15. Judicial, Legal, and Prisons	22,405
16. Northern Rhodesia Police	59,287
17. Health	45,571
18. Veterinary	19,084
19. Agriculture	10,289
20. Mines and Public Works Department ...	9,999
21. Public Works Annually Recurrent ...	25,224
23. Percentage of Tax	8,100
24. Miscellaneous	12,391
25. Pensions and Gratuities	29,081
Total Ordinary	£475,175
Extraordinary :	
4. Printing and Stationery	—
11. Posts and Telegraphs	1,773
22. Public Works...	41,858
Grand Total	£518,806

Statement showing the Actual Revenue to the end of March, 1928.

Head of Revenue.	*Actual Revenue to 31st March, 1928.* £
1. Customs	146,501
2. Licences, Taxes and Internal Revenue ...	220,339
3. Fees of Court or Office, etc.	33,363
4. Post Office	32,867
5. Rents of Government Property	10,666
6. Interest	2,092
7. Miscellaneous	9,671
Total	£455,499
8. Land Sales	19,184
Grand Total	£474,683

The deficit for the year, therefore, amounted to £44,123, as against an estimated deficit of £64,968.

The following statement gives the financial position as at 31st March, 1928 :—

		£
Excess of Assets over Liabilities at 1st April, 1927		174,904
Excess of Expenditure over Revenue, 1927-28	£44,123	
Refund to Imperial Treasury on Account of Loan Grants in Aid ...	50,000	
		94,123
Excess of Assets over Liabilities at 31st March, 1928		£80,781

The following is a statement of Assets and Liabilities as at 31st March, 1928.

Liabilities.	£	*s.*	*d.*
Deposits	32,488	3	9
Post Office Savings Bank	5,368	15	10
Administrator-General and Registrar ...	4,191	2	6
Crown Agents for the Colonies :—			
Overdraft	52,000	0	0
Excess of Assets over Liabilities ...	80,781	5	0
	£174,829	7	1

Assets.	£	s.	d.
Cash	53,192	17	1
Investments	5,000	0	0
Administrator-General and Registrar ...	4,191	2	6
Advances pending receipt of Loan Funds :—			
Roads and Bridges	38,941	11	3
Central Research	7,412	16	9
Zambesi Survey	3,250	0	0
Advances	25,246	18	8
Unallocated Stores	37,594	0	10
	£174,829	7	1

During the last five years there have been continuous large increases in both the revenue and the expenditure of the territory, as the following table shows :—

	Revenue.	*Expenditure.*	
		Ordinary.	*Extraordinary.*
	£	£	£
1923-24	... 279,020	319,154	... 4,355
1924-25	... 309,795	325,778	... 14,549
1925-26	... 371,046	372,847	... 21,298
1926-27	... 421,035	421,584	... 33,867
1927-28	... 474,683	475,175	... 43,631

In addition to the recurrent and extraordinary expenditure to which reference is made above the Government expended during 1927-28 between £40,000 and £45,000 on development schemes in anticipation of a loan of £224,000 to be raised under Imperial guarantee. This expenditure is at present financed by advances from the Crown Agents. The development schemes that are being undertaken by the Government are :—

(1) The construction of arterial roads, including necessary bridges and pontoons, estimated to cost £185,000.

(2) The construction of a Central Research Station at Mazabuka for the Agricultural and Veterinary Departments, the estimated cost of which is £30,000.

(3) The aerial survey of the Zambesi river at a total cost of £6,500.

(4) The establishment of a port at Mpulungu on Lake Tanganyika costing £2,500.

The Banks that operate in Northern Rhodesia are :—

(1) The Standard Bank of South Africa, Limited, which has branches at Livingstone and Lusaka, and a sub-branch at Mazabuka, and

(2) Barclays Bank (Dominion, Colonial, and Overseas) which is established at Broken Hill, Ndola, Fort Jameson, and Bwana M'kubwa.

The total of the amounts deposited at these Banks at the 31st December, 1927, was £519,035 as compared with £458,292 at the 31st December, 1926.

The Post Office Savings Bank has increased its operations, the deposits at 31st December, 1927, amounting to £4,650 as compared with £2,422 at 31st December, 1926. During the year the amount invested on behalf of depositors increased by £2,500 to £4,000. The sums deposited during 1927 amounted to £5,669 as compared with £3,313 in 1926. It is apparent, therefore, that the Savings Bank is growing in popularity and provides a much-needed service. At the 31st December, 1927, there were 276 depositors, a net increase of 117 for the year.

III.—PRODUCTION.

A.—Land and Agriculture.

Of the total approximate area in the Territory, of 184,288,000 acres, the North Charterland Exploration Company holds, subject to the due assignment of native reserves, a concession over 6,400,040 acres, the British South Africa Company owns three freehold areas comprising 2,758,400 acres in Tanganyika District, and 2,645,075 acres have been otherwise alienated for purposes of European settlement, not including 28,460 acres leased without option to purchase. The total area of alienated land is, therefore, 11,831,975 acres, about 6.42 per cent. of the whole Territory.

Most of the alienated land is used for grazing; some of it is cultivated but a large area is unsuitable for either grazing or cultivation owing to the absence of water.

The following table will give a comparative idea of the acreage under the various staple crops under cultivation in the four previous seasons :—

Season.	*Maize.* *Acres.*	*Tobacco.* *Acres.*	*Wheat.* *Acres.*	*Cotton.* *Acres.*	*Total under cultivation* *Acres.*
1923–24 ...	42,377	3,462	1,250	2,331	52,243
1924–25 ...	35,568	4,323	2,633	16,702	61,712
1925–26 ...	36,470	4,939	3,387	11,849	60,297
1926–27 ...	44,837	6,719	2,780	693	69,837

Smaller areas were planted with fodder-crops, groundnuts, beans, potatoes, kaffir corn, oats, etc., which are considered minor crops.

Climatic conditions were again somewhat unfavourable to the European agricultural community, the rainfall for the season 1926-27 being below the average. In March when it is usual to expect comparatively heavy rain, none fell after the first few days except in a few areas where, however, the fall was very scanty. Even before their cessation, the rains had been very irregular with the result that the average yield of most crops was lower than normal although production generally was greater than was at first anticipated. But the results of the season's work were better than those obtained during the abnormally wet season of 1924-25 and, taking all circumstances into consideration, the year must be looked upon as successful.

The maize crop amounted to 250,068 bags, the yield being 5.5 bags per acre. Although this average is the highest yet recorded it does not accurately define the position as regards maize grown for export. A number of farmers grow maize only for home consumption and the conditions under which it is produced are such as to lower the crop average. The tendency, which has been prevalent, to plant ever-increasing acreages is being slowly displaced by a policy of reasonable acreages well planted and fertilized. The continuance of such a policy must, in time, result in great advantage to the grower and increase in yields. The grain produced in 1926-27 was, on the whole, of good quality, well reaped and in hard condition, and growers in the Territory were successful exhibitors at Shows in Southern Rhodesia and the Union of South Africa.

The following table gives maize statistics from 1921 onwards :

Year ending 31st December	*Acreage, in thousands of acres*	*Average yield per acre.*	*Yield, in thousands of bags.*	*Farm consumption, in thousands of bags.*	*Surplus available for sale, in thousands of bags.*
1921	29	4·88	145	18	127
1922	25	3·49	99	18	81
1923	38	5·18	199	32	167
1924	35	3·08	129	28	101
1925	36	2·67	95	23	72
1926	36	4·87	177	37	140
1927	44	5·50	250	36	214

The above figures are exclusive of native-grown maize of which no reliable statistics are available.

After satisfying all local requirements the maize grown has supplied a considerable amount for export to the Belgian Congo. Practically all the farm-grown maize is handled by a Co-operative Society which, in the past, has secured large contracts for the Congo mines and it is hoped that similar contracts will be obtained in the future. Owing to the development in mining areas in the Territory, the local demand for maize has increased very considerably and the general position is satisfactory. The average price of farm-grown maize, which must be regarded as the Territory's staple crop, has been about 11s. 6d. per bag of 200 lb. net.

The tobacco crop amounted to 3,005,798 lb., the greater portion to which was produced in the Fort Jameson District. The variety principally grown is a bright Virginia, and, in the past, has found a ready market for cigarette manufacture. The prices which have been realised in the past few years have been most satisfactory, but the present position of the tobacco market is such that a limited acreage should be planted in the near future until conditions have become stabilised.

The wheat crop amounted to 10,586 bags and it is discouraging to find that the acreage under wheat has been 607 less than last year and the total yield has decreased by 1,100 bags. It was thought that the increased acreage planted last year, combined with the establishment of a flour mill at Choma and the increased demand resulting from mining activity, would have brought about a still greater increase. The fact that practically all the flour consumed in Northern Rhodesia is imported indicates the possibilities of this crop which can be grown satisfactorily where irrigation facilities exist.

Comparative figures for the past three years are as under :—

	Acreage planted.	*Yield, in Bags of 200 lb. net.*
1925	2,633	9,895
1926	3,387	11,687
1927	2,780	10,586

This failure to cater for the increasing demand caused by the greater number of Europeans employed in the mining areas is further reflected in the position with regard to dairy produce and vegetables. Every year large quantities of butter, eggs, and vegetables are imported from the south in excess of home production.

The crops grown by natives are at present mainly confined to food-stuffs for their own consumption though, in certain districts, especially in the proximity of mines, additional quantities are grown for sale. Preliminary investigations have been made with a view to ascertaining whether other economic crops can be introduced to areas remote from the railway line and the mines, to enable the natives to produce cash crops at their own villages. It is feared that little can be done in the matter without far more detailed investigations into the conditions, and without trained demonstrators, in such remote areas. At the present time agricultural education of an elementary nature is being given by various missionary societies, and grants for this purpose have been made to them by the Government.

It is realised that the building up of a sound native agricultural industry must be slow, in order to eliminate many of the risks liable to be incurred through erroneous advice due to inadequate opportunity to investigate agricultural problems in the remote areas. Further risks are liable to be incurred by sudden increase in production.

Owing to the existence of extensive tsetse fly belts, large areas of the Territory are closed to cattle. It has been found possible, however, to maintain ox-transport in the vicinity of certain of the new mining concerns which are situated within tsetse fly belts by the intravenous injection of sodium of potassium antimony tartrate. The palliative effect of the drug is sufficient to keep trypanosomiasis-infected cattle in work for considerable periods. Good results in the curative treatment of the disease still attend the administration, intravenously, of solutions of antimony tartrate and there is ample proof that, where animals are not again exposed to infection, many permanent cures are effected. The transportation of tsetse fly by motor vehicles constitutes a menace to the settled areas and calls for serious consideration.

In the Barotse District there are large numbers of cattle, almost entirely native-owned. Contagious bovine pleuro-pneumonia is enzootic in that district, but the measures in force to prevent its spread to the settled areas continue to be effective. An extensive inoculation scheme for the elimination of the disease from Barotseland is contemplated.

In the remainder of the Territory there are approximately 638,767 native-owned and 97,479 European-owned cattle, the majority of which are unimproved. Grading up by the use of good bulls of the improved breeds is practised by the more enlightened farmers and its results are noticeable in many parts of the Territory.

Although the native, generally speaking, is still conservative and apathetic on the subject of improvement of his herds, there are continued indications that he is beginning to take more interest in animal husbandry. Every opportunity is taken by the staff of the Veterinary Department to impart the elementary principles of animal husbandry, to emphasise the deleterious effects of inbreeding and neglect of castration, and to foster the practice of selection and general improvement.

As a result of the increased facilities for the use of motor-cars in practically all portions of the settled areas, horse and mule transport has almost disappeared and the number of these animals is negligible.

A considerable trade in live stock for slaughter purposes is done with the Katanga Province of the Belgian Congo. The requirements of the local markets, especially in the mining areas, are increasing annually, and the supply of slaughter cattle from cases of what is presumed to be sleeping sickness have been reported from various parts of the Luangwa Valley, but the disease is not now prevalent there.

(b) *Malaria and Blackwater Fever.*

The following table gives the number of persons admitted to hospital suffering from malaria and blackwater fever with mortality statistics in each case, figures also being given for 1925 and 1926 :—

Year.			European Population.	Malaria.		Blackwater Fever	
				Cases.	Deaths.	Cases.	Deaths.
1927	...	...	7,275	272	6	20	5
1926	...	...	5,581	262	1	21	7
1925	...	...	4,624	211	6	13	7

(c) *Influenza.*

This has been prevalent over the whole Territory but the incidence shows a decrease on previous years.

(d) *Yaws.*

Results of the treatment of yaws with bismuth and sodium tartrate continue to be satisfactory. This disease is chiefly prevalent in the Kasempa, Kafue, and Luapula areas.

(e) *Leprosy.*

Native Department statistics show that there are 5,218 lepers in the Territory, of whom 3,816 have been notified to the Medical Department. No statistics are available for mortality. A system of voluntary segregation in co-operation with the various Missionary Societies will shortly be commenced and gradually developed in combination with the establishment of treatment centres for early cases.

(f) *Smallpox, Chicken-pox, and Kaffir Pox.*

Outbreaks of these diseases occurred in many parts of the Territory but were for the most part localised. The mortality rate was low.

177,290 persons were vaccinated and, as far as can be ascertained, the results were successful in about 80 per cent. of cases.

(g) *Ankylostomiasis.*

This disease is widely distributed amongst the native population.

(h) *Bilharziasis.*

It is impossible to state with any accuracy to what extent this disease is present. Hospital statistics show an infection-rate of about 0.5 per cent. of those examined. It is hoped that, in time,

VI.—JUSTICE, POLICE, AND PRISONS.

Justice is administered by the High Court of Northern Rhodesia, and by the Magistrates' and Native Commissioners' Courts subject to appeal to and review by the High Court.

During the year the High Court dealt with 78 civil matters, as against 89 in the preceding year, and heard eight actions and one appeal. Two petitions in bankruptcy were presented. Sessions were held at Mazabuka, Lusaka, Broken Hill, and Ndola in September, and at Fort Jameson in October.

Twenty-five criminal cases came before the Court, exclusive of reviews of judgments in the lower Courts : these latter numbered 333, of which 178 were confirmed, 29 quashed, 74 altered, and 11 cases sent back, 8 being subsequently approved and 3 quashed ; in the remaining 41 cases the accused were bound over.

The Criminal Investigation and the Town and District branches of the Northern Rhodesia Police were involved in 4,773 prosecutions as compared with 3,715 in 1926. In addition to these, many cases are tried at stations where there are no police ; nor do these figures include the large number of prosecutions for offences against the Native Tax Law. This increase of prosecutions is attributed to (a) increased police activity on account of the growing efficiency of the Force and partly owing to the opening of new stations ; and (b) to the growth of townships and settled areas with resultant temptation and opportunities for crime.

The following figures show the convictions for the more serious crimes, corresponding figures being given for 1926 for the purposes of comparison :—

	1927.	1926.
Murder	9	39
Manslaughter	7	8
Arson	34	7
Forgery	14	13
Perjury	Nil	10
Housebreaking	50	21
Burglary	3	8
Rape, attempted rape, and assault with intent to rape	4	16
Indecent assault	12	15
Assault occasioning bodily harm ...	92	117

Seven out of the nine sentences of death were commuted to various terms of imprisonment. In the remaining two cases the law took its course.

Of the total number of persons accused of crime 94 per cent. were convicted.

Kituta to Kalombo on the Tanganyika border, a distance of 21 miles. The Abercorn-Kituta line is to be extended 7 miles to Mpulungu (Msende Bay) on Lake Tanganyika in the near future, and will also be connected with the Tanganyika Territory system at an early date.

A telephone service exists at Livingstone and gives continuous day and night service. The larger switch-board installed during the year is fully loaded and the provision of additional accommodation to meet the demand for connections is being considered. There is a trunk line from Livingstone to the Victoria Falls Hotel on the Southern Rhodesia side of the Zambesi.

Postal work shows a considerable increase, and once more reflects the progress that the country has made. During the year, stamps and embossed stationery were sold to the value of £15,778, as compared with £13.492 in the preceding year.

Money-orders were issued to the value of £41,904, and £27.070 was paid out in respect of money-orders issued elsewhere. The corresponding figures for the preceding year were £29.488 and £19.648. Postal orders issued numbered 42,249 and were worth £23,289, while £9,036 was paid out in respect of 15,526 postal orders.

The Cash-On-Delivery system was used by an increased number of persons, and 3.651 packets, valued at £10.882, were dealt with under it. 15,900 articles were undelivered and passed through the Returned Letter Office. The following table shows the quantities of the various kinds of mail matter received and despatched during the year, as compared with the figures for the preceding two years:—

Received.

	1927.	1926.	1925.
Letters	1,796,704	1,489,982	1,081,340
Postcards	34,540	22,308	25,688
Newspapers	605,592	401,340	392,080
Book packets	325,728	354,042	191,046
Parcels	41,080	33,370	34,996
Registered articles	50,284	37,154	32,916

Despatched.

	1927.	1926.	1925.
Letters	2,167,464	1,464,696	1,108,226
Postcards	51,376	33,540	32,276
Newspapers	108,316	54,574	49,400
Book packets	174,720	124,418	126,680
Parcels	8,216	6,162	8,944
Registered articles	53,924	34,984	29,900

(1,200 tons) calls at Mpulungu (26 miles from Abercorn) fortnightly and a road is at present under construction between Abercorn and this port. The Liemba's sailings are timed to correspond with the arrivals and departures of trains at Kigoma, thus affording through communication from North-Eastern Rhodesia to the port of Dar-es-Salaam.

The Rhodesia-Congo Border Road leaves the Great North Road near Kapiri Mposhi, and runs in a north-westerly direction via Ndola, Nkana, and Nchanga to Solwezi, a distance of about 312 miles. A branch road gives access to the Belgian Congo and Elizabethville.

From Solwezi a road runs in a south-westerly direction to Kasempa. It is proposed to extend this to Mumbwa and construction of this section is now in hand; this road will connect with the Great North Road at Broken Hill.

A road, known as the Great East Road, is in course of construction from Lusaka to Fort Jameson, and it is hoped to complete this by the end of 1928.

Communication with the Mweru-Luapula District is maintained by a road that crosses the Pedicule of the Belgian Congo from Ndola to Kapalala.

All these roads have numerous branches leading to farms, mission stations, District and Sub-District Stations, or other points of European settlement in the various districts through which they pass.

The authorisation of the East Africa Loan, in which Northern Rhodesia will share, has made possible the production of a comprehensive scheme of arterial road construction, which will include the improvement of the roads mentioned above. The development of the six-wheeled lorry and the roadless tractor is being watched with interest; and it is anticipated that the next few years will see a complete revolution in the existing transport position. Very great development is to be expected in all branches of communications.

C.—Posts, Telegraphs, and Telephones.

A line carried on the Railway Company's poles affords telegraphic communication between the Victoria Falls Bridge and the Belgian Congo, and between intervening stations. The line from Livingstone to Ndola is double, while the remainder is single, the total length of wire being 1,007 miles. There is also a telegraph line from the Nyasaland border to Abercorn and another from the same border further south to Fort Jameson; the length of wire, which is single, being 149 and 8 miles, respectively. Abercorn is also connected by telephone to Kasama, a distance of 108 miles; and via the Rhodesia Railways Company from Victoria Falls to Broken Hill and by the Rhodesia-Katanga Junction Railway and Mining Company from Broken Hill to Sakania, but it is run under one management and forms in effect a single railway system which stretches from Vryburg in Bechuanaland and from Beira in Portuguese East Africa through Southern Rhodesia to Sakania in the Belgian Congo. This single line enters the Protectorate by means of a remarkable bridge spanning, at a height of nearly 400 feet, the Zambesi River at the gorge some 200 yards below and within sight of the Victoria Falls. It passes Livingstone, crosses the Kafue at the station of that name, and enters the Belgian Congo slightly north of Ndola. The total length of line within the Territory is 607 miles, and there are no branch lines.

Legislation has been passed authorizing the construction of branch lines from Bwana M'Kubwa to Roan Antelope Mine and Nkana and it is believed that construction will be undertaken on these lines shortly.

B.—Roads.

With the exception of the short road known as the Jameson Road from Livingstone to the Victoria Falls, a distance of seven miles, and the private road of the Broken Hill Mining and Development Company leading from their plant and mine to the hydro-electric power station on the Mulungushi River, some thirty-six miles away, there are no macadam constructed roads in the country, and only these can be described as "all-weather" roads. All the other roads are earth roads, and, though the smaller rivers are bridged with bush timber bridges and occasionally by steel trestles and the roads embanked and sometimes gravelled where they cross marsh land, traffic is liable to be interrupted for at least two months in the year, usually in February and March.

In the last three years the mileage of roads passable for from eight to ten months in the year has very considerably increased; and, during the season when they are open, these roads compare very favourably with roads in Southern Rhodesia or the Union of South Africa.

The following are the main lines of road now open:—

The Great North Road runs from the Victoria Falls via Livingstone, Mazabuka, Lusaka, Broken Hill, Serenje, Mpika, Chambesi River, where the crossing is effected by pontoon, and Kasama, to Abercorn and Lake Tanganyika, a distance of about 1,000 miles. A branch road from near Abercorn to Mwenzo connects with the Tanganyika system and provides direct communication with Tanganyika Territory and Kenya.

A fortnightly steamboat service has been established by the Tanganyika Government on Lake Tanganyika. S.S. "Liemba"

Statement showing the value of Imports and Exports for the Year 1927, from and to other countries, and also the corresponding figures for the preceding three years.

	1927.		1926.		1925.		1924.	
	Imports.	*Exports.*	*Imports.*	*Exports.*	*Imports.*	*Exports.*	*Imports.*	*Exports.*
	£	£	£	£	£	£	£	£
Union of South Africa	217,063	198,624	166,001	161,439	97,648	127,130	63,228	110,222
Southern Rhodesia ...	261,093	77,221	258.884	65,548	171,482	84,916	143,842	36,406
United Kingdom and other British Possessions.	987,502	272,045	818,718	142,761	760,017	91,900	328,746	93,681
Total British Empire	1,465,658	543,090	1,243,603	369,743	1,029,147	258,946	535,816	240,309
Foreign Countries ...	491,480	202,504	423,981	112,728	254,878	178,646	126,826	213,745
Total Merchandise ...	£1,957,138	£745,594	£1,667,584	£482,471	£1,284,025	£431,992	£662,642	£454,054

These figures show the percentage of trade to be :—

	1927.	1926.	1925.	1924.
Union of South Africa	11·1	10·0	7·6	15·5
Southern Rhodesia	13·3	15·5	13·4	16·1
United Kingdom and other British Possessions.	50·4	49·1	59·2	37·9
Total British Empire	74·8	74·6	80·2	69·5
Foreign Countries	25·2	25·4	19·8	30·5

The gross Customs revenue collected for the past five years is shown in the following table :—

1927.	1926.	1925.	1924.	1923.
£144,841	£102,254	£83,567	£76,359	£62,059

IMPORTS.

The principal articles imported during 1927 were as under, figures for 1923 to 1926 being also given :—

	1927.	1926.	1925.	1924.	1923.
	£	£	£	£	£
Animals (living), agricultural and pastural products.	41,651	44,530	30,389	2,772	21,579
Food-stuffs	173,630	148,733	101,584	82,626	69,051
Ales, spirits, wines, etc., (potable).	76,320	54,088	38,249	29,843	22,858
Ales, spirits, wines, etc., (non-potable).	616	474	299	231	58
Tobacco	38,827	27,519	19,473	16,549	14,125
Textiles, apparel, yarns, fibres.	395,548	376,527	300,536	189,657	120,464
Metals, metal manufactures, machinery, and vehicles.	717,710	576,982	522,711	157,089	95,182
Minerals, earthenware, glasses, and cement.	97,205	104,515	67,555	40,367	33,763
Oils, waxes, resins, paints, varnishes.	97,149	76,482	45,892	26,738	21,414
Drugs, chemicals and fertilisers	68,680	55,580	22,776	11,997	7,775
Leather, rubber and manufactures thereof.	46,086	30,522	21,555	14,345	10,944
Wood, cane, wicker and manufactures thereof.	62,685	56,087	35,103	19,352	19,286
Books, paper and stationery...	26,707	19,703	15,134	11,841	9,873
Jewellery, timepieces, fancy goods, etc.	34,124	24,470	19,285	13,930	10,395
Miscellaneous	80,200	71,372	43,484	45,305	45,235
	£1,957,138	£1,667,584	£1,284,025	£662,642	£502,002

of European manufacture. It is not worth while to smelt iron nowadays when scrap iron can be picked up anywhere. Pottery has been replaced by the enamel basin and jug, and other industries have suffered in the same way. There is no longer a market for the old native trade goods. They have passed out of date. There are indications, however, that, if the opportunity of production is presented to natives whose experience at mining centres has given them some education in business matters, they are capable of working successfully on their own and without European supervision. It has been suggested that the Barotse River tribes, if instructed in boat building, might become skilled in this craft, and the question is receiving attention.

IV.—TRADE AND ECONOMICS.

Northern Rhodesia is in the curious position of being divided into two Customs zones. The northern zone, which is known as the Congo Basin, is governed by the conditions of the Berlin Act of 1885. Goods imported into this zone, therefore, are not subject to the terms of the Agreement with Southern Rhodesia and the Union of South Africa, though the duties imposed are in almost all instances similar to those imposed in the southern zone, except that equality of trade is granted to all nations. The Zambesi Basin, as the latter is called, is subject to Customs Agreement with Southern Rhodesia, with the Union of South Africa and with the High Commission Territories of Bechuanaland, Basutoland, and Swaziland. Under the existing Agreement Northern Rhodesia receives 12 per cent. *ad valorem* on removals from the Union of South Africa of imported goods, and 6 per cent. on removals of South African manufactured goods; unmanufactured produce of South Africa is not subject to duty. The Union of South Africa charges the actual duty at Union rates on removals from Northern Rhodesia of imported goods, but allows entry to Northern Rhodesia produce free of duty. The minimum sum payable by the Union to this Territory is £12,500 per annum.

On imported goods removed from Southern Rhodesia to Northern Rhodesia the duty is calculated at Northern Rhodesia tariff rates, a deduction of 5 per cent. being made on collections and vice versa in the case of removals from Northern Rhodesia to Southern Rhodesia.

With regard to manufactures and products there is a free interchange of these between Southern Rhodesia and Northern Rhodesia.

The following table of Imports and Exports shows an excess of the latter over the former during the year under review, but this adverse balance can be mainly attributed to the large amount of mining machinery which has necessarily been imported for the development of the mining industry, the production of which should in due course cause imports and exports to balance.

The figures given for 1927 are subject to final adjustments which will probably cause them to be greater than shown above.

The companies actively engaged in mining during 1927 and the capital involved were as follows :—

Rhodesia Broken Hill Development Company, Limited, capital, £2,500,000;
Bwana M'Kubwa Copper Mining Company, Limited, capital £2,000,000;
Nchanga Copper Mines, Limited, capital £600,000;
Roan Antelope Copper Mine, Limited, capital £600,000;
Rhodesia Congo Border Concessions, Limited, capital £575,000;
Serenje Concessions, Limited, capital £225,000;
Kasama Concessions, Limited, capital £225,000;
Loangwa Concessions, Limited, capital £200,000;
Rhodesia Mineral Concessions, capital £200,000;
Falcon Mines, capital £600,000;
Total capital, £7,725,000.

The last two companies named above also have interests in Southern Rhodesia.

C.—Industry.

The only industrial establishment in the Territory, at present, is the Zambesi Saw Mills, Limited, which has a sawing plant at Livingstone. The company has been granted concessions over certain forest areas to the north-west of Livingstone, and the timber cut therein is brought down to the mills by means of a light railway some forty miles in length. The company has a contract for supplying sleepers to the South African Railways, and it also supplies most of the requirements of the Rhodesia Railways. About 50 Europeans and about 1,500 natives are now employed in this industry.

There is a fishing and fish-curing industry carried on by natives on the banks of Lakes Mweru and Bangweulu. A ready market for dried fish is found on the Katanga Mines and with one or two European traders who are established in the vicinity, and the industry, though naturally limited, continues to flourish. There is also a small trade in dried fish on the Kafue river near the railway line, and in the Zambesi valley. Natives in the swamps to the south of Lake Bangweulu carry on a considerable trade in otter skins. There is also a native salt industry in the Mpika and Chiengi sub-districts, and to a lesser extent in the Kasempa sub-district; while in various districts a considerable trade in native tobacco is carried on. But the fact remains that, apart from the limited activities noted above and the production of food crops, the old native industries have been killed by the importation of articles

Northern Rhodesia is insufficient to meet the demands of the Katanga. The highest price obtained for slaughter stock within the Territory during 1927 was 33s. per 100 lb. (dead weight) and the average price about 30s. Native stock realised 22s. to 27s. 6d. per 100 lb. (dead weight).

A creamery has been established at Choma and has met with success. The farming community is coming to realise that dairying, with its products and by-products, is a valuable adjunct to mixed farming, and although Northern Rhodesia still imports dairy produce the local output is increasing.

The settled areas of the country are free from any of the sweeping epizootic cattle diseases. Energetic veterinary and police measures have been successful in preventing the invasion of rinderpest from the north, East Coast fever from the south, and contagious bovine pleuro-pneumonia from the west. Sporadic outbreaks of anthrax and quarter-evil occur, but they are promptly suppressed by quarantine, proper disposal of carcasses, vaccination, and inoculation. Skin diseases of stock yield to regular dipping, and dipping is responsible too for maintenance and improvement in the condition of cattle.

Apart from the Fort Jameson District of North-Eastern Rhodesia, in which a few cases of tuberculosis have come under notice, this Territory would appear to be practically free from this disease. This latter fact may be regarded as one of the most valuable pastoral assets of the greater part of the Territory.

Some loss occurs from indigenous diseases of cattle, and experimental work on their incidence, aetiology, transmission, and treatment is being done. The elimination of these diseases would facilitate the process of grading up by means of pedigree stock already referred to.

It is being more and more realised that Northern Rhodesia is a valuable cattle country and that, by means of paddocking and sound methods of herding, farms can be made to carry more stock according to their acreage than has hitherto been considered possible.

B.—Mining.

The year under review was again one of intensive development and prospecting rather than of production.

The Bwana M'Kubwa plant, which at the time of erection was considered capable of treating 1,200 tons of copper ore per day, came into operation early in the year, but results were disappointing owing to difficulties caused by the design of the plant and the low grade of the ore delivered from the mine. These, however, are being overcome and it appears that, though the ore from Bwana M'Kubwa itself will hardly justify the continuance of the plant, there are reserves of ores of sufficiently good grade at Nkana circumstances will permit of a more comprehensive survey of this and other diseases and will facilitate the institution of intensive treatment.

(i) *Tuberculosis.*

There is no indication of the distribution or extent of tuberculosis. That the degree of infection is low is indicated by native hospital and out-patient returns and by the medical examination of large numbers of natives for various purposes.

The general health of the European population was good. The following tables show the vital statistics (European) for 1927 and previous years :—

	1927.	*1926.*	*1925.*
Number of deaths	72	62	63
Death rate per 1,000	9·89	11·1	13·7
Deaths of infants under 1 year of age	18	7	15
Death rate per 1,000 of births in year	125	49·3	108

144 children were born, of whom 70 were males and 74 females, which represents a crude birth-rate of 20 per 1,000 as compared with 25.4 per 1,000 in 1926.

The native population is estimated at 1,237,486. There is no system of birth or death registration possible at present and consequently no figures are available from which vital statistics may be obtained.

Infantile mortality is known to be high and has been estimated to be between 40 per cent. and 50 per cent. of children born.

IX.—EDUCATION.

European Education.

There are four schools providing secondary education up to Standard VII at Livingstone, Mazabuka, Lusaka, and Broken Hill. A mixed boarding establishment is attached to the school at Mazabuka, with accommodation for 25 children.

Five schools providing primary education up to Standard V exist at Silver Rest, Mulendema, Chilongolo, Lubombo, and Fort Jameson.

During 1927 three small aided schools were also open.

Twenty-nine teachers were employed in the schools. The total enrolment at the close of the school year 1927 was 480 (252 boys and 228 girls), an increase of 63 over the figure for 1926 and 83 over that of 1925.

Native Education.

The education of natives in Northern Rhodesia is at present carried on almost entirely by the Missionary Societies, the Government making some grants in aid and exercising such supervision as is possible through the Director of Native Education, to assist whom an Inspector has recently been appointed. The most pressing requirement is the training of native teachers and instructors without whom any satisfactory attempt at the education of the native population is impossible. This fact is realised by the Missionary Societies who, encouraged by the grants being made, are endeavouring to bring out more trained European educationists as members of their staffs. Generally the progress made at village schools has not been encouraging, but, with the fuller provision of qualified native teachers and sympathetic visitation of mission schools by trained European educationists, it is hoped that better results will ensue.

The chief educational event of the year was the meeting of the General Missionary Conference of Northern Rhodesia which took place at Livingstone in July and was followed by meetings of the Advisory Board on Native Education. The Conference now includes all the fifteen Missionary Societies operating in Northern Rhodesia, and among visitors who contributed greatly to the value of its deliberations were Dr. Loram and Canon Spanton. The matters discussed by the Advisory Board included the provisional code for village and station schools, the draft for a revised Native Schools Ordinance, the system on which grants-in-aid of educational work should be made, the education of half-caste children, the registration and certification of native teachers, and the adoption of certain vernaculars for school purposes. Finally, it considered various ways of spending any grants which might be forthcoming in aid of native education or native welfare from the Beit Trustees or from any other sources, intimation having been received from one of the Trustees of the Beit Bequest that funds might be available shortly for such purposes.

The two projects finally recommended to the Trustees by the Government were (1) the establishment of an Agricultural School and of a Jeanes School for training visiting teachers at Mazabuka, and (2) a Native Training Institution in North-Eastern Rhodesia which should include a department for training native health agents, sanitary inspectors, and medical orderlies. It is not yet known whether the Trustees will support these projects. In any case it is hoped that progress will be made with the Jeanes School on a small scale.

It is regretted that the welfare scheme for the natives of Broken Hill, to which reference was made in last year's report, has met with no success, probably owing to its being too ambitious, and has been postponed until the Mine Authorities are prepared to move in the matter and facilities exist.

On the other hand it is pleasing to note that the School of Agriculture at the Dutch Reformed Church at Magwero, in the Fort Jameson District, has continued to do most useful work and has been well reported on by visiting officers and that, generally, efforts made by the various Missionary Societies are being well supported and are productive of improvement in native standards.

The Native Schools (Amendment) Ordinance, passed in December, 1927, was in the main a re-enactment of the Native Schools Proclamation, 1921. The main objects of the amendments were to do away with the ambiguity of the terms " teaching " and " preaching " and to distinguish in the definitions between schools and what are now classified as sub-schools. This will make it possible to obtain a more accurate idea from Mission returns of the amount and quality of the educational work being done by the various Societies.

In the continued absence of an inspectorate, Government supervision for the year has had again to be confined to such visits to Mission Stations as the Director of Native Education was able to make. One Missionary Educationist made a tour of the Missions in his area at the request of the Department and submitted an interesting report.

The following figures of expenditure from Government funds are indicative of the increasing interest and progress in provision of education for the native population :—

	£
1924-25	348
1925-26	3,994
1926-27	6,603
1927-28 (estimated)	8,519
1928-29 (estimated)	9,110

which figures do not include contributions from the Barotse Fund.

X.—LANDS AND SURVEYS.

During 1927, 194 enquiries regarding land settlement in Northern Rhodesia have been received : from residents in the Territory (136), United Kingdom (7), Southern Rhodesia (13), Union of South Africa (30), Kenya Colony (1), Nyasaland (1), South America (1), and Belgian Congo (5). In addition to the above, 133 enquiries were dealt with for surveyed plots at sidings and townships. 43,292 acres were alienated under permits of occupation as new holdings, the total purchase price being £8,255. Forty-six titles to farms were issued during the year in respect of 164,428 acres and forty titles for forty-nine township plots and two titles to small farms in the Livingstone area, comprising 43 acres. Thirty-eight leases were issued for forty-five township plots with option to purchase, the total purchase price being £5,000, two-thirds of which has been paid on issue of the lease. Sixty-one other leases were issued for small areas. The amount received in respect of timber royalty was £2,710, which is mainly due to the increased activity of the Zambesi Saw Mills, as compared with £2,350 17s. 6d. in 1926.

During the year a lengthy and satisfactory programme of field surveys was carried out which included surveys, in all parts of the Territory, of several hundred farms, township plots, etc., road traverses, ground controls for aerial survey of townships of Broken Hill, Lusaka, and Livingstone, and a special survey for the Tanganyika District Native Reserves Commission which was carried out by a junior surveyor loaned for the purpose.

Resident Government surveyors are now stationed at Lusaka, Broken Hill, Fort Jameson, and Kasama, which will result in increased efficiency at less cost owing to the great saving in time and expenses of journeys involved when work has to be done in these areas.

The Aircraft Operating Company, Limited, has been occupied in aerial survey work for mining companies in Northern Rhodesia and arrangements have been made with the company for surveys on behalf of the Government as follows :—

(1) Zambesi River, and its tributaries the Kabompo and Lungwe Bungu.

(2) Township surveys of Livingstone, Mazabuka, Lusaka, and Broken Hill.

(3) Mapping from oblique photographs of a portion of the Rhodesia-Congo Border.

Two International boundary surveys have been carried out during the year and are expected to be completed in 1929 or 1930. The first of these is the demarcation of an actual line between Northern Rhodesia and the Belgian Congo and is being undertaken by an International Commission.

The second is the demarcation of part of the boundary line between Northern Rhodesia and the Nyasaland Protectorate, a distance of approximately 130 miles.

XI.—LABOUR.

(a) *Within the Territory.*

The continued activity in mining operations in the Territory has provided Northern Rhodesia natives with a labour market comparatively close to their homes and, generally speaking, the response has been satisfactory. Northern Rhodesia mines offer wages and conditions of housing, feeding, and general attention which compare very favourably with the extra-territorial labour centres which compete for the Territory's labour. Unfortunately, farm work has continued to be unpopular and it would appear that this is largely due to the fact that wages and general conditions are not so satisfactory as in other labour fields. The impression appears prevalent amongst the farmers that the remedy for the shortage of labour from which they suffer lies in Government action along the lines of a Pass Law but it is difficult to see how the institution of a Pass Law would lead the native to offer his services to an employer whose conditions of employment did not appeal to him, though it would serve a useful purpose in discouraging deserters. As was remarked in the Report for 1925 a change of outlook is necessary, and it is only by their own efforts in improving general conditions of labour that agricultural employers will attract labourers to their farms. Those farmers who have realised this fact, and they are not a few, have little or no difficulty in obtaining labour.

Carriers are becoming increasingly difficult to obtain and will soon be impossible except in the remoter parts of the Territory where motor transport is unknown.

Wages have risen slightly at labour centres but vary throughout the Territory. The raw labourer gets but 5s. a month in some of the more remote districts, while he can earn as much as 18s. or more for long contracts on the mines or with railway contracts.

During the year an attempt has been made to estimate the labour done by the native population and the figures obtained show that the adult taxable males of the Territory, who number 248,948, have averaged a little over 2¼ months' work each in Northern Rhodesia during the year.

Among the various industries, agriculture appears to have absorbed most labour (192,750 man months), while mining is second (113,917 man months), the total being estimated at 573,398 man months.

(b) *Without the Territory.*

Three labour recruiting agencies for other territories have been at work in the Territory, details of their attestations, etc., for 1926 and 1927 being as under.

Recruiting Agent.	*Recruited.*		*Repatriated.*	
	1927.	*1926.*	*1927.*	*1926.*
Rhodesia Native Labour Bureau (Southern Rhodesia).	4,718	4,882	5,533	7,104
R. W. Yule (Congo Mines)	6,153	4,609	3,774	6,376
G. H. Lobb (Tanganyika Territory Plantations)	230	506	383	—
Totals	11,101	9,997	9,690	13,480

These recruiting organisations are subject to conditions which ensure that natives recruited by them will not only be well looked after on their journey to and from their place of work, and during the time spent there, but also will receive a certain proportion of their wages on return to their homes. In deferred pay the agencies paid out in 1927 the sum of £45,091 16s. 2d.

In addition to natives proceeding to work outside the Territory under the aegis of one of the recruiting agencies, it is estimated that some 31,500 proceeded on their own. Thus it would appear that natives of Northern Rhodesia worked about 300,000 man months outside the Territory, in addition to the 573,398 man months worked in the Territory.

When due allowance is made for the time spent in essential work in their home villages, and the time spent going to and from the labour centres (often as much as two months), the fact that Northern Rhodesian able-bodied males have averaged 3½ months per year in work for European enterprise can only be regarded as most satisfactory.

XII.—MISCELLANEOUS.

During the year under review three sessions of the Legislative Council were held, viz., on the 11th February, 1927, 8th July, 1927, and 25th November, 1927, respectively.

Twenty-nine Ordinances in all were passed, of which the more important were :—

> *The Railways Ordinance*, 1927, which provides for the setting up of a railway commission in order to attain uniformity throughout the various railway companies operating in this Territory, Southern Rhodesia, and Bechuanaland Protectorate;
>
> *The European Officers' Pensions Ordinance*, 1927, bringing this Territory into line with regard to pensions regulations with the other East African Dependencies;
>
> *The Motor Traffic Ordinance*, 1927, which provides for the control and licensing of motor-cars;
>
> *The Vehicles and Roads Consolidation Ordinance*, 1927, which removes anomalies formerly existing and brings the law on this subject up to date; and
>
> *The Municipal Corporations Ordinance*, 1927, which affords facilities for the creation and constitution of municipalities in the Territory.

As a result of the East African Law Officers' Conference, 1926, reciprocal arrangements have been made with other Dependencies in Africa and elsewhere for the exchange of local enactments. By this means a valuable library of Colonial Legislation is being accumulated.

G. A. S. NORTHCOTE,
Chief Secretary.

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NORTHERN RHODESIA

REPORT FOR 1928

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NORTHERN RHODESIA.

ANNUAL REPORT, 1928.

PREFACE.

The territory known as the Protectorate of Northern Rhodesia lies between longitudes 22° E. and 33° 33′ E. and between latitudes 8° 15′ S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South West Africa ; comprising in all an area that is computed to be about 287,950 square miles. The River Zambesi forms the greater part of the southern boundary ; its two main northern tributaries are the Rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown territory. The curtain of obscurity lifts for a moment when we read the diaries of the Portuguese Governor of Sena, Dr. Lacerda, who led an expedition in 1798 from Tete into Kasembe's country, close to the eastern shores of Lake Mweru. He was followed in the early 19th century by two Portuguese traders, Baptista and José, who brought back stories of the great interior kingdom of the Balunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the 16th to the 19th century. Very few historical facts are known about it, but the name of Muati Yamvo, the dynastic title of the Paramount Chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any very great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and visited the Victoria Falls, that the civilized world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls were Serpa Pinto, Cameron, Selous, and Arnot.

From the very early days when the hordes of migratory Bantus swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasions from stronger tribes on its borders. So much so, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambesi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time statistics are available of seventy different tribes resident in the territory, of which the most important are the Awemba (108,310), Achewa (71,488), Angoni (49,131), and Awisa (46,549) in the Eastern Districts; the Barotse (110,079), Batonga (95,818), Balenge (39,675), Balala (38,495), Balovale (31,173), and Bakaonde (30,182) in the Western Districts; and the Asenga (62,385), and Alunda (56,609) members of which are resident in both Eastern and Western Districts. There are said to be 30 distinct native languages in use, of which Chiwemba and Chinyanja have been adopted for educational purposes in the Eastern Districts and Chitonga (closely allied to Chila) and Sikololo in the Western. In addition to these, Chinyanja is in use as the official language of the police, and is probably the language most generally spoken by Europeans; it is, in reality, a Nyasaland language—the word means "Language of the Lake"—but it is also spoken to some extent round Fort Jameson.

The chief invaders of the early part of the 19th century were the Arabs from the north; the Angoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the territory; and the Makololo, an offshoot of the Basuto family, who, in the beginning of the 19th century, fought their way from the south through Bechuanaland and across the Zambesi under the noted Chief Sebitoani; they conquered the Batoka, the Basubia, and the Barotse and founded a kingdom which was distinguished by a comparatively high degree of social organisation.

The duration of the Makololo kingdom was short. Soon after the death of Sebitoani, the Barotse rebelled and massacred the Makololo to a man. The influence of their occupation is still to be seen in the Sikololo language, which is largely spoken amongst the tribes near the Zambesi. The Barotse under Lewanika enlarged their kingdom by conquering one or two of the surrounding tribes, such as the Bankoya and the Balovale. Beyond these limits their authority was both nebulous and ephemeral. In the year 1890 Lewanika asked for British protection and on the 27th June the Barotse Concession was signed, by which Lewanika recognised the Protectorate of Queen Victoria and gave to the Chartered Company certain mining and commercial rights over the whole of his dominion. Lewanika, on his side, received a yearly subsidy of £2,000.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lake Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in 1893, the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave raiders were occasionally encountered on the north-east boundary, and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavedom. This social serfdom was brought to an end by an edict of Lewanika's, who in 1906 agreed to the emancipation of the slave tribes.

Previous to 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland-North-Western Rhodesia Order in Council placed the administration of the western portion of the country by the Company on a firm basis; and this was closely followed by the North-Eastern Rhodesia Order in Council of 1900 with similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924, when, in terms of a settlement arrived at between the Crown and the Company, the administration of the territory was assumed by the Crown, and the first Governor was appointed on 1st April, 1924.

The currency in use consists partly of English coinage and partly of notes of the Southern Rhodesia issue of the Standard Bank of South Africa and Barclay's Bank (Dominion Colonial and Overseas) both of which have branches and agencies in this country. The coins and notes of the Union of South Africa are also current at par.

English weights and measures are employed.

There are considerable climatic differences between various parts of the country. The Zambesi, the Luangwa, and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November, before the rains break, when the mean maximum is 97° in the Zambesi valley stations and 85° at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90.3° with a mean minimum of 64.5° while the corresponding figures for the four months of the cold season (May to August) are 78.7° and 46.6°.

During 1928 the highest mean maximum recorded at Livingstone for any one month was 97.2° in October and the lowest mean minimum for any one month was 42.8° in July ; at the same station the absolute maximum for the year was 103.6° recorded in October, and the absolute minimum was 37.0° recorded in July. The highest temperature recorded in the territory was 116° at the Barotse National School in October and the lowest was 30° at Solwezi in July.

The rainy season usually commences in November and lasts until April, after which month rain is rarely experienced and then in negligible quantities. Rainfall generally was low during the latter part of the rainy season (January to April) and during February there was a serious drought over the North-Western Districts. There were low rainfalls in October and November, but this improved in December after a drought in the early part of that month.

The temperature was generally below normal and the year may be said to have been colder than has generally been experienced in past years.

I.—GENERAL.

The Commission on Closer Union of the Dependencies in Eastern and Central Africa under the Chairmanship of Sir Edward Hilton Young paid a short visit to the territory during April, 1928. Evidence was taken at Livingstone, Lusaka, and Broken Hill.

The first municipality in Northern Rhodesia was inaugurated at Livingstone on 1st April and Mr. R. Davidson became the first Mayor.

Native affairs have been quiet. The work of the Native Reserves Commission was completed during the year and the areas demarcated as Reserves can be seen on the map accompanying this report.

The territory was to have been visited by His Royal Highness the Prince of Wales during the dry season of 1928, but owing to the unfortunate illness of His Majesty the King, since happily restored to health, the tour had to be abandoned before His Royal Highness had reached Northern Rhodesia. His Royal Highness the Duke of Gloucester, however, passed through on his way to Cape Town and enjoyed a certain amount of big game shooting in the North-Eastern Districts of the Territory.

Her Royal Highness Princess Marie Louise also paid a visit to Northern Rhodesia on her way to the Belgian Congo.

The Right Reverend Monsignor Arthur Hinsley, Bishop of Sebastopolis and Rector of the English college at Rome, visited the territory as Visitor Apostolic in Africa on behalf of H.H. the Pope. He inspected the two Roman Catholic Missions operating in Northern Rhodesia.

A conference of Directors of Native Education was held at Nairobi in November, 1928, and was attended by the Director of Native Education for Northern Rhodesia.

Mr. G. A. S. Northcote was appointed Chief Secretary of Northern Rhodesia and arrived in February, 1928.

Immigrants into Northern Rhodesia in 1928, exclusive of natives, numbered 1,066, of whom 929 were British subjects. The following comparative figures of immigration, exclusive of visitors, are indicative of the increasing progress being made by the territory :—

1923	*1924.*	*1925.*	*1926.*	*1927.*	*1928.*
260	438	474	756	1,038	1,066.

Eighteen persons were deported, 5 having criminal records, 8 being indigent, and 5 illiterate. Of these deportees 5 were natives. No figures of emigration are available.

Eight hundred and fifty natives are reported to have immigrated into the territory during the year ; most of these came from Angola, Mozambique, and the Belgian Congo.

II.—FINANCE.

Prior to the year under review the financial history of the territory records an unbroken series of annual deficits. It is satisfactory to be able to record that the financial year 1928–29 shows a surplus of revenue over expenditure of £16,438. The expansion in revenue has been well maintained, the percentage of increase exceeding that for the previous year. This is attributable to the development, now in progress, of the mineral wealth of Northern Rhodesia, particularly to the development of the rich copper ore deposits that have been discovered in the Ndola District.

The revenue from all sources for the year amounted to £541,606, an increase of £66,923 or 14.1 per cent. over the previous year. Revenue from Customs duties produced £175,964, an increase of £29,463 or 20.1 per cent. Licences, taxes, and internal revenue produced £245,942, an increase of £25,153 or 11.4 per cent. mainly due to substantial increase under native tax and income tax. Fees of Court or Office produced £50,335, an increase of £33,363 or 50.9 per cent. mainly accounted for by larger receipts under mining revenue and registration of natives and by certain unforeseen items. Post Office revenue of £38,789 shows an increase of 18 per cent. The steady expansion of postal business, noticeable in previous years, is being maintained. Rent of Government property declined from £10,666 to £10,208, due to the fact that the acreage of land that has passed under final title exceeds the acreage of land taken up under permits of occupation. Interest, £1,299, is less by £793 owing to smaller surplus cash balances held. Miscellaneous, £9,459, compares with £9,671 collected in the previous year in which there were exceptionally large receipts under sales of ivory. Land sales amounted to only £10,059, a decline of £9,125, attributable to agricultural depression which prevented several farmers from completing the purchase of their farms. The revenue from plot sales was normal.

The expenditure for the year amounted to £525,168 compared with the sanctioned estimate of £549,488 or a net saving of £24,320. Substantial savings occurred under practically all heads of expenditure due to economy which has contributed towards the attainment of a satisfactory surplus ; an excess of £5,632 occurred under pensions and gratuities mainly due to the payment of death gratuities to the personal representatives of six deceased officers.

Extraordinary expenditure amounted to £28,769 and besides a substantial programme of buildings included the cost of an aerial survey of the Rhodesia Congo Border Concession.

STATEMENT SHOWING THE ACTUAL EXPENDITURE TO THE END OF MARCH, 1929.

Head of Expenditure.	*Actual Expenditure to 31st March, 1929.*
	£
1. The Governor	6,963
2. Secretariat	7,659
3. European Education	19,141
4. Printing and Stationery	6,611
5. Department of Native Affairs	15,283
6. District Administration	105,036
7. Treasury and Income Tax	11,410
8. Customs	9,035
9. Posts and Telegraphs	31,496
10. Lands Department	15,968
11. Survey Department	10,596
12. Audit Office	3,482
13. Judicial	5,237
14. Attorney-General	4,222
15. Northern Rhodesia Police	64,089
16. Prisons	12,659
17. Health	47,742
18. Veterinary	19,007
19. Agriculture	11,485
20. Mines Department	2,447
21. Public Works Department	7,586
22. Public Works Annually Recurrent	21,477
23. Percentage of Tax	8,400
24. Miscellaneous Services	14,875
25. Pensions and Gratuities	30,632
26 Interest Account	3,861
Total Ordinary	£496,399

	£
Extraordinary :	
27. Printing and Stationery	1,305
28. Survey Department	5,148
30. Public Works	22,316
Grand Total	£525,168

STATEMENT SHOWING THE AC[illegible] REVENUE TO THE END OF MARCH, 1929.

Head of Revenue.	*Actual Revenue to 31st March,* 1929. £
1. Customs	175,964
2. Licences, Taxes and Internal Revenue ...	245,492
3. Fees of Court or Office, etc.	50,335
4. Post Office	38,789
5. Rent of Government Property	10,208
6. Interest	1,299
7. Miscellaneous	9,460
Total	£531,547
8. Land Sales	10,059
Grand Total	£541,606

The surplus for the year, therefore, amounted to £16,438.

The following statement gives the financial position as at 31st March, 1929 :—

	£
Excess of Assets over Liabilities at 1st April, 1928	80,781
Excess of Revenue over Expenditure, 1928–1929	16,438
Excess of Assets over Liabilities at 31st March, 1929	£97,219

The following is a statement of assets and liabilities as at 31st March, 1929 :—

Liabilities.	£	*s.*	*d.*
Deposits	33,075	14	1
Post Office Savings Bank	6,103	10	4
Administrator-General and Registrar ...	5,429	2	8
Crown Agents for the Colonies :—			
Overdraft	113,000	0	0
Excess of Assets over Liabilities	97,218	16	6
	£254,827	3	7

Assets.	£	*s.*	*d.*
Cash	77,352	7	4
Investments	5,000	0	0
Administrator-General and Registrar ...	5,429	2	8
Advances pending receipt of Loan Funds :—			
Roads and Bridges	74,584	17	11
Central Research	18,370	18	5
Zambesi Survey	3,250	0	0
Advances	44,189	4	11
Unallocated Stores	26,650	12	4
	£254,827	3	7

The revenue and expenditure for the last five years were :—

		Expenditure.		
	Revenue.	*Ordinary.*	*Extraordinary.*	*Total.*
	£	£	£	£
1924–25	309,795	325,778	14,549	340,327
1925–26	371,046	372,847	21,298	394,145
1926–27	421,035	421,584	33,867	455,451
1927–28	474,683	475,175	43,631	518,806
1928–29	541,606	496,399	28,769	525,168

In addition to the recurrent and extraordinary expenditure, the Government expended during 1928–1929 £46,601 on development schemes in anticipation of loan funds under the Palestine and East African Guaranteed Loan. The total amount sanctioned by the Legislative Council is £224,000 of which £49,604 was expended during 1927-1928 making a total of £96,205 expended at the 31st March, 1929. This expenditure is at present financed by advances from the Crown Agents. The development schemes that are being undertaken by the Government are :—

(1) The construction of arterial roads, including necessary bridges and pontoons, estimated to cost £185,000.

(2) The construction of a Central Research Station at Mazabuka for the Agricultural and Veterinary Departments, the estimated cost of which is £30,000.

(3) The aerial survey of a part of the Zambesi river at a total cost of £6,500.

(4) The establishment of a port at Mpulungu on Lake Tanganyika costing £2,500.

The Banks that operate in Northern Rhodesia are the Standard Bank of South Africa, Limited, which has branches at Livingstone, Lusaka, Mazabuka, Broken Hill, and Ndola, and Barclay's Bank (Dominion, Colonial and Overseas) which has branches at Livingstone, Lusaka, Broken Hill, Ndola, Fort Jameson, and Bwana M'Kubwa. The total of the amounts deposited at these Banks at the 31st December, 1928, was £545,463 as compared with £519,035 at the 31st December, 1927.

The Post Office Savings Bank has increased its operations, the deposits at 31st December, 1928, amounting to £5,408 as compared with £4,650 at 31st December, 1927. During the year, the amount invested on behalf of depositors increased from £4,000 to £5,000. The sums deposited during 1928 amounted to £5,780 as compared with £5,669 in 1927. At the 31st December, 1928, there were 366 depositors, a net increase of 90 for the year. It is apparent, therefore, that the Savings Bank is growing in popularity and provides a much needed service.

III.—PRODUCTION.

A.—Land and Agriculture.

Of the total approximate area in the territory of 184,288,000 acres, the North Charterland Exploration Company holds a concession over 6,400,040 acres, subject to the assignment of native reserves amounting at present to 2,148,440 acres. The British South Africa Company owns, subject to the assignment of native reserves of 1,094,475 acres, three freehold areas in Tanganyika District comprising 2,758,400 acres. 2,753,023 acres have been otherwise alienated for purposes of European settlement, not including 32,321 acres of land leased without option to purchase. The total area of alienated land is, therefore, 11,943,783 acres, about 6½ per cent. of the whole territory.

Most of the alienated land is used for grazing, some of it is cultivated, but a large area is unsuitable for either grazing or cultivation owing to the absence of water. The following table will give a comparative idea of the acreage of the various staple crops under cultivation in the five previous seasons :—

Season.	*Maize.*	*Tobacco.*	*Wheat.*	*Cotton.*	*Total under cultivation.*
	Acres.	*Acres.*	*Acres.*	*Acres.*	*Acres.*
1923–24	42,377	2,462	1,250	2,331	52,243
1924–25	35,568	4,323	2,633	16,702	61,712
1925–26	36,470	4,939	3,387	11,849	60,297
1926–27	44,837	6,719	2,780	693	69,837
1927–28	43,889	7.339	1,819	286	62,928

Smaller areas were planted with fodder crops, ground-nuts, potatoes, kaffir corn, oats, etc., which are considered minor crops.

Climatic conditions were again somewhat unfavourable to the European agricultural community, the rainfall for the season 1927–28 being below the average. Early rains fell in some districts, but not in others, where planting was delayed in consequence. Later rains allowed crops to obtain a good start and satisfactory stands resulted in most districts. During February the climatic conditions were most unfavourable. Cloudless skies and intense heat were experienced and rain was recorded only at five stations in the settled area adjoining the railway line, where the rainfall was 2.13 inches, as compared with an average of 6.82 inches during a normal season. It was feared, at one time, that an almost total failure of crops would result. Good rains, early in March, saved the situation in all but isolated groups of farms. In view of the conditions which were experienced the results must be looked upon as satisfactory, but a general lowering of yields has resulted.

The maize crop amounted to 183,870 bags. The yield being 4.9 bags per acre, as compared with 250,068 bags and an average of 5.5 bags per acre for the previous season, which was the highest on record. The acreage abandoned rose from 1,904 in 1926–27 to 3,836 for 1927–28. This increase of 100 per cent., and the lower yield, were almost entirely due to the prolonged drought in February. Allowing for this setback, the yield was, on the whole, satisfactory. The tendency which has been prevalent to plant ever-increasing acreages is being slowly displaced by a policy of reasonable acreages well planted and fertilized. The continuance of such a policy must, in time, result in great advantage to the grower and increase in yields.

The following table gives maize statistics from 1921 onwards :—

Year ending 31st December.	*Acreage, in thousands of acres*	*Average yield per acre.*	*Yield, in thousands of bags.*	*Farm consumption, in thousands of bags.*	*Surplus available for sale, in thousands of bags.*
1921	29	4·88	145	18	127
1922	25	3·49	99	18	81
1923	38	5·18	199	32	167
1924	35	3·08	129	28	101
1925	36	2·67	95	23	72
1926	36	4·87	177	37	140
1927	44	5·50	250	36	214
1928	43	4·59	183	32	151

The above figures are exclusive of native-grown maize of which o reliable statistics are available.

After satisfying all local requirements, the maize grown has supplied a considerable amount for export to the Belgian Congo. A large amount of the farm-grown maize is handled by a co-operative society, which, in the past, has secured large contracts for the Congo mines, and it is hoped that similar contracts will be obtained in the future. Owing to the development in mining areas in the territory, the local demand for maize has increased very considerably and the general position is satisfactory. The average price of farm-grown maize, which must be regarded as the territory's staple crop, has been about 11*s*. 6*d*. per bag of 200 lb. net.

The tobacco crop amounted to 3,249,378 lb., of which 2,983,683 lb. was produced in the Fort Jameson district. The variety principally grown is a bright Virginia, and in one of the western districts 18 acres of Turkish were sown, yielding 12,700 lb. The year under review has seen a most distressing change in the position of the tobacco planters in the territory. For some years previous the market in Africa and the United Kingdom has absorbed, at good prices, all the leaf produced, and the industry appeared to be in a prosperous condition. The increase in the acreage planted and in the yields was steady until the season 1927–28. During that season the largest crop ever grown in Northern Rhodesia was produced. Although the increase was considerable, it was in no way comparable to the unparalleled increase which took place in Southern Rhodesia. As a consequence the markets, which had already begun to react to the increased amounts available, became glutted and sales practically ceased. As usual by far the greatest amount of leaf grown in the territory had been produced in the Fort Jameson district, and the planters found themselves in grave financial difficulties. In the farming districts adjoining the railway line the amount of tobacco grown was comparatively small, and in most cases the acreage was reasonable and formed only a portion of more general farming operations. Although the failure to sell the crop has caused the greatest disappointment and inconvenience, in only a few cases has it caused difficulties comparable to those in the Fort Jameson district.

The total acreage planted with wheat was 1,734 and the yield was 8,512 bags, a decrease of 1,046 acres and 2,074 bags on the previous year. Although this is most disappointing, it must be pointed out that the amount of rain which fell in some districts during the season 1927–28 was insufficient to allow many dams to be filled and the acreage under irrigation had to be limited accordingly. Apart from this fact, the position as regards wheat production is unsatisfactory, the decrease in the acreage planted during the last three seasons being 1,653 or nearly as much as the total acreage planted last season. Customs statistics for 1928 are at present available for the months of January to October inclusive only. During that period Northern Rhodesia imported flour to the value of £14,352, and £15,215 worth of flour passed through this territory to the Belgian Congo. At Lusaka there is a mill capable of grinding very large quantities of wheat. It is not suggested for a moment that if an amount of wheaten flour equal to that imported were produced it would find an immediate market. The majority of flours used to-day are composed of blends of different wheats and certain of them have become popular with the public. If we are enter into competition with these blends a greatly increased organisation will be necessary ; nevertheless, the longer we delay the greater will be the difficulty of obtaining a larger share of the markets than we possess at present. Comparative figures for wheat for the past four years are as follows :—

Year.	*Acreage planted.*	*Yield, in Bags of 200 lb. net.*
1925	2,633	9,895
1926	3,387	11,687
1927	2,780	10,586
1928	1,819	8,754

As regards cotton-growing, experience has shown that the variety of seed used in the past is unsuitable for local conditions. The policy of Government, therefore, is to persuade farmers severely to limit the acreage put under cotton until a satisfactory variety of seed is available. To this end experimental work is being actively prosecuted at the research station in close liaison with departments of other Governments and stations of the Empire Cotton Growing Corporation in Africa. The information gained during the season 1926–27 was most satisfactory and the position is rendered more hopeful by the fact that the Empire Cotton Growing Corporation have seconded an officer to the department who is devoting the whole of his time to the problem. It may be stated that there is an increasing feeling of optimism that Northern Rhodesia may yet take her place among the cotton-producing colonies. If cotton can be firmly established as a paying rotation crop, it will do much to increase the stability of the whole agricultural industry.

Up to the present coffee planting has been in an experimental stage. It may now be said to be definitely established as an industry. During the season 1926–27 the amount produced was more than six short tons. Almost the whole of this was exported to the United Kingdom and the price obtained was most satisfactory. Last season the amount produced was increased to a total of nearly seven short tons. Increased planting is taking place in the Abercorn district.

There appears to be no reason why coffee planting should not become of considerable importance.

The citrus export trade is increasing rapidly. Last season 3,750 cases of fruit were exported, of which a large proportion went to the Belgian Congo.

The crops grown by natives are at present mainly confined to foodstuffs for their own consumption, though in certain districts, especially in the proximity of the mines, additional quantities are grown for sale. Preliminary investigations have been made with a view to ascertaining whether other economic crops can be introduced to areas remote from the railway line and the mines to enable the natives to produce cash crops at their own villages. In the report of the Assistant Agriculturist stationed in the Abercorn district, there appears the following statement :—

> " There is no doubt about the keenness of natives to take up agriculture, but at present they do not see any reason why they should change their methods of growing their foodstuffs because they are able to produce all the food they require."

It is very questionable whether the first portion of the statement can be applied to the natives of the territory in general, but there is no doubt that the latter part expresses most aptly the feelings of the majority. There are, of course, the few who are anxious to copy and benefit by the methods adopted by Europeans, and the number of ploughs which are sold year by year at up-country stores is indicative of the progressive feeling which is being engendered in the minds of those who live in the proximity of settled areas. In the more remote districts very little improvement has taken place. With the exception of certain isolated missions, the attempts at agricultural instruction in the past have been negligible, but there is evidence of a general awakening to the necessity for this work if the native is to remain in a contented state in his own village. It should be unnecessary to state that any agricultural instruction which is to be given should be entrusted to those who are qualified by training to carry it out to the best advantage, and that any change which is brought about should be the result of a thorough understanding of the general principles of progressive agriculture. It would be unwise to endeavour to change the general principles of native agriculture too suddenly. Many of their methods may be, and are, extremely wasteful, but some of them are founded upon ideas which are not unsound and all of them are, at present, established as a part of native tradition.

Although the foundations of a better native agricultural system must be laid by careful instruction in the underlying principles, it is felt that practical illustrations will be of much value and are, indeed, essential. With this in view the department is to undertake the education of selected natives for employment as demonstrators. These natives will reside at, and be members of, the Jeanes School which is being erected on the outskirts of the Research Station at Mazabuka and their technical education will be in the hands of the staff of the station. In the course of time they will be posted to district work under the supervision of the staff of the department or the agriculturists attached to missions.

The year under review has again been a somewhat difficult one for stock owners. The rainy season did not fulfil its early promises and a dry interval, in some districts, in February, and the almost total cessation of rain in early March, caused an inadequate growth of pasture. During the later months of the dry season, and particularly during the period when cold nights were experienced, cattle began to lose condition and the losses from poverty, before the early rains brought relief, were heavy. At the end of the year, owing to the early rains, the growth of pasture was sufficient to cause a great improvement in the general condition of stock.

During December a Conference of Representatives of the Cattle Owners Association and of the Mining interests, was held in Livingstone under the presidency of the Governor, to consider the question of the meat supply in relation to the increased mining development. The general feeling of those present was that, although an actual shortage was not evident at the moment, the time was quickly approaching when Northern Rhodesia would be unable to supply her own demands. A free discussion took place on the whole subject and the members of the Cattle Owners' Association agreed to submit proposals for meeting the situation.

B.—Mining.

The intensive prospecting and development features of previous years were again prominent. The big increase in production which is expected from the big copper discoveries will not be forthcoming for some time.

The Bwana Mkubwa plant treatment has been improved. The new mining machinery has already done much to improve the position in the open cast whilst satisfaction prevails as a result of boreholes to sulphides in depth.

The Nkana Mine, belonging to the same company as Bwana Mkubwa, has been carrying out an extended drilling programme with highly satisfactory results. The proposed branch railway to this mine is under construction.

At the Rhodesia Broken Hill Mine the electrolytic zinc plant has been continuously and successfully in operation. Lead ore down to existing water level has been practically worked out and the pumps are now to be lowered a further stage.

Development work at the Roan Antelope Mine has been taking the form of mining preparation for an immense daily output. The branch railway line is through to the mine but preparations for work upon such a considerable scale may take two years to complete.

At the Nchanga Copper Mines Limited the new shaft and cross cut has safely and effectively opened up the deposits. Exploratory drilling has also been done and is continuing.

The attention which has been paid to the development of the Kansanshi Mine during the last two years is yielding satisfaction to the owners, the Rhodesia Katanga Railway Junction and Mineral Company Limited.

Selection Trust Limited and Rhodesian Selection Trust Limited operating in the " Nkana Grant Area " were rewarded with very striking finds of copper sediments similar geologically to the Roan

Antelope and Bwana Mkubwa deposits but more extensive and richer than either. The uniformity of value in the boreholes put down is also excellent.

Of these discoveries the Mufulira Mine is coming into being with rapidity as work is being concentrated upon it.

The Rhodesian Congo Border Concession Limited and Loangwa Concessions (Northern Rhodesia) Limited (the latter being a recent amalgamation of the previous Loangwa, Kasempa and Serenje concessions) have been in continued operation under the control of the Anglo-American Corporation Limited.

Accurate and detailed geological and topographical maps of the different parts of the territory in which these concessions have been particularly interested to date are being prepared.

Rhodesia Minerals Concession Limited have sublet certain areas to the Luiri gold areas and have pegged gold locations which are to be worked. A plant was erected for this purpose and is being operated.

The following table shows the mineral production during 1928 :—

		£	*s.*	*d.*
Gold	602.39 ounces	2,558	15	0
Silver	87.73 ounces	9	12	0
Copper	5,930.43 tons	382,932	10	0
Lead	4,676 tons	98,951	5	0
Mica	7,930 lb.	1,982	10	0
Zinc	13,176.30 tons	331,344	11	0
Vanadium	113,656 lb.	80,979	18	0
Manganese ...	1,792 tons	2,688	0	0
Iron Ore	4,466 tons	2,233	0	0
		£903,680	1	0

The aggregate capital of the mining companies operating in the territory is approximately nine and three-quarter million pounds.

IV.—TRADE AND ECONOMICS.

Northern Rhodesia is in the curious position of being divided into two Customs zones. The Northern zone, which is known as the Congo Basin, is governed by the conditions of the Berlin Act of 1885. Goods imported into this zone, therefore, are not subject to the terms of the Agreement with Southern Rhodesia and the Union of South Africa, though the duties imposed are in almost all instances similar to those imposed in the Southern zone, except that equality of trade is granted to all nations. The Zambesi Basin zone, as the latter area is called, is subject to Customs Agreements with Southern

Rhodesia and with the Union of South Africa, which includes for the purposes of the Customs Agreement the High Commission Territories of Bechuanaland, Basutoland, and Swaziland.

Under the existing Agreement with the Union of South Africa, Northern Rhodesia receives 12 per cent. *ad valorem* on removals from the Union of South Africa of imported goods and 6 per cent. on removals of South African manufactured goods ; unmanufactured produce of South Africa is not subject to duty. The minimum sum payable by the Union to this territory is £12,500 per annum. The Union of South Africa charges the actual duty at Union rates on removals from Northern Rhodesia of imported goods, but allows entry free of duty of Northern Rhodesia produce.

Under the Agreement with Southern Rhodesia, the duty on imported goods removed from Southern Rhodesia to Northern Rhodesia is calculated at Northern Rhodesia tariff rates. A deduction of 5 per cent. is made in the case of goods cleared at the port of Beira by the Southern Rhodesia Customs.

There is a free interchange of products and manufactures between Southern Rhodesia and Northern Rhodesia, but on Union manufactures in Southern Rhodesia, which are subsequently removed to Northern Rhodesia, Southern Rhodesia passes credit to this Government at the rate of 6 per cent. on the original Union value.

Northern Rhodesia grants preferential rates of Customs duty on all goods (with the exception of certain articles, the principal of which are cattle for slaughter, tea, coffee, cocoa, chicory, rice, motor spirit, lubricating and illuminating oils, tobacco, wines, and spirits) shown to have been grown, produced, or manufactured in the United Kingdom or British possessions granting equivalent reciprocal privileges. Such preferences vary in extent from 16 per cent. to 3 per cent. *ad valorem.*

The following summary furnishes a comparison of the value of imports from British and from foreign countries during the years 1926 to 1928 :—

Imports from :	*1928.* £	*1927.* £	*1926.* £
Union of South Africa	245,909	217,063	166,001
Southern Rhodesia	371,469	261,093	258,884
United Kingdom and other British Possessions.	1,135,775	987,502	818,718
Total British Possessions	1,753,153	1,465,658	1,243,603
Foreign Countries	613,164	491,480	423,981
Total merchandise	£2,366,317	£1,957,138	£1,667,584

The following table illustrates the comparative value of the principal items of imports during the years 1926 to 1928 :—

	1928.	*1927.*	*1926.*
	£	£	£
Animals (living)	28,965	41,651	44,530
Foodstuffs, etc.	200,722	173,630	148,733
Ales, Spirits, Wines, etc. (Potable) ...	86,160	76,320	54,088
Spirits (Non-potable)	867	616	474
Tobacco	44,624	38,827	27,519
Textiles, Apparel, Yarns, Fibres	471,114	395,548	376,527
Metals, Metal Manufactures, Machinery, and Vehicles.	902,110	717,710	576,982
Minerals, Earthenware, Glasses, and Cement.	161,993	97,205	104,515
Oils, Waxes, Resins, Paints, and Varnishes	102,982	97,149	76,482
Drugs, Chemicals and Fertilisers	89,396	68,680	55,580
Leather, Rubber and manufactures thereof	53,825	46,086	30,522
Wood, Cane, Wicker and manufactures thereof.	82,311	62,685	56,087
Books, Paper, and Stationery	33,940	26,707	19,703
Jewellery, Timepieces, Fancy Goods, etc.	42,027	34,124	24,470
Miscellaneous...	65,281	80,200	71,372
	£2,366,317	£1,957,138	£1,667,584

The following summary furnishes a comparison of the value of exports to British and to foreign countries during the years 1926 to 1928 (excluding articles exported through the post and specie) :—

	1928.	*1927.*	*1926.*
	£	£	£
Union of South Africa	117,966	193,824	161,439
Southern Rhodesia	77,441	77,221	65,543
United Kingdom and other British Possessions.	374,644	272,045	142,761
Total British Empire	570,051	543,090	369,743
Foreign Countries	272,536	202,504	112,728
Total	£842,587	£745,594	£482,471

The following table illustrates the comparative value of the principal items of domestic exports for the years 1926 to 1928 :—

	1928.	*1927.*	*1926.*
	£	£	£
Animals (living)	22,456	36,205	52,606
Hides, Skins, and Horns	44,898	21,831	15,591
Ivory	9,911	8,214	7,117
Butter...	431	1,445	1,219
Wheat...	9,218	13,546	18,575
Maize, including other cereals in the grain	29,964	59,711	31,246
Maize Meal	23,488	18,437	10,566
Pulse	—	—	497
Tobacco (unmanufactured)...	100,848	240,568	155,832
Cotton (Raw)	238	—	4,746
Copper	231,304	133,115	23,566

	1928. £	*1927.* £	*1926.* £
Lead	71,103	88,652	43,284
Vanadium	3,457	6,749	4,498
Other (Ores)	13,277	1,165	2,047
Other (Metals	166,866	—	—
Gold	1,815	1,690	2,697
Silver	23	9	16
Lime	948	1,004	1,072
Curios...	293	354	505
Articles through the post	4,481	9,911	1,911

The trade balance of imports over exports is again very pronounced, amounting to £1,519,249 as compared with £1,201,613 for 1927.

This position is mainly accounted for by the fact that Northern Rhodesia's mining industry is still in the early stages of the development of its vast mineral resources. In connection with this development, importations of metal manufactures, machinery, and railway material again show considerable increases over the figures of previous years, against which the present production from the mines, though on the increase, provides no corresponding set-off. It can, however, be anticipated that the export statistics in future years will show a marked recovery in respect of the trade balance.

The following are the ports of entry into and exit from Northern Rhodesia :—

> Livingstone, Ndola, and Fort Jameson (free warehousing ports) ; Solwezi, Mwinilunga, Nchanga, Balovale, Mufulira, Kazangula, Abercorn, Fort Rosebery, Isoka (Fife), Feira, Chiengi, Mpika.

V.—COMMUNICATIONS.

A.—Railways.

The principal means of communication is the railway, which, after leaving Livingstone, runs in a north-easterly direction, dividing the country into two nearly equal portions. It is now owned entirely by the Rhodesia Railways Company, which has purchased the section from Broken Hill to Sakania formerly owned by the Rhodesia-Katanga Junction Railway and Mining Company, and is part of a single system which stretches from Vryburg in Bechuanaland and from Beira in Portuguese East Africa through Southern Rhodesia to Sakania in the Belgian Congo. This single line enters the Protectorate by means of a remarkable bridge spanning the Zambesi river gorge at a height of nearly 400 feet and about 400 yards below and within sight of the Victoria Falls. It passes Livingstone, crosses the Kafue river at the station of that name, and enters the Belgian Congo slightly north of Ndola. The total length of line within the territory is 507 miles.

There is a branch line to the Roan Antelope Copper Mine from Ndola, about 25 miles in length, which was opened for traffic at the end of December, 1928. Legislation has been passed authorising the construction of another branch line from Ndola to the Nkana Copper Mine, and the construction of this line is soon to be undertaken.

B.—Roads.

With the exception of the short road known as the Jameson Road from Livingstone to the Victoria Falls, a distance of seven miles, and the private road of the Broken Hill Mining and Development Company leading from their plant and mine to the hydro-electric power station on the Mulungushi river, some forty-five miles away, there are no macadam constructed roads in the country, and these two only can be described as "all-weather" roads. All the other roads are earth roads, and though the smaller rivers are crossed by bridges made either of bush timber or occasionally of steel rails and the roads are embanked and sometimes gravelled where they cross marsh land, traffic is liable to be interrupted for at least two months in the year, usually in February and March.

In the last three years the mileage of roads passable for from eight to ten months in the year has very considerably increased. The following are the main lines of roads now open :—

> The Great North Road runs from Victoria Falls via Livingstone, Mazabuka, Lusaka, Broken Hill, Serenje, Mpika, Chambesi river, where the crossing is effected by pontoon, and Kasama to Abercorn and Lake Tanganyika, a distance of about 1,000 miles. A branch road from near Abercorn to Mwenzo connects with the Tanganyika system and provides direct communication with Tanganyika Territory and Kenya.

A fortnightly steamboat service has been established by the Tanganyika Government on Lake Tanganyika. S.S. "Liemba" (1,200 tons) calls at Mpulungu (26 miles from Abercorn) fortnightly and a road has been made between Abercorn and this port. The "Liemba's" sailings are timed to correspond with the arrivals and departures of trains at Kigoma, thus affording through communication from North-Eastern Rhodesia to the port of Dar-es-Salaam.

The Rhodesian-Congo Border Road leaves the Great North Road near Kapiri Mposhi, and runs in a north-westerly direction via Ndola, Nkana, and N'changa to Solwezi, a distance of about 312 miles. A branch road gives access to the Belgian Congo and Elizabethville. From Solwezi a road runs in a south-westerly direction to Kasempa. It is proposed to extend this to Mumbwa at a future date, and this road will connect with the Great North Road at a point between Broken Hill and Lusaka.

A road, known as the Great East Road, is in course of construction from Lusaka to Fort Jameson. Part of it requires re-siting and it will not, therefore, be completed as early as was hoped.

Communication with the Mweru-Luapula District is maintained by a road that crosses the pedicule of the Belgian Congo from Ndola to Kapalala.

All these roads have numerous branches leading to farms, missions and Government stations or other points of European settlement in the various districts through which they pass.

The authorisation of the East African Guaranteed Loan, in which Northern Rhodesia shares, has made a scheme of arterial road construction possible. The continual development of the six-wheeled lorry and the roadless tractor is being watched with interest, and it is anticipated that the next few years will see a complete revolution in the existing transport position.

C.—Posts, Telegraphs, and Telephones.

Telegraphic communication exists between the Victoria Falls Bridge and the Belgian Congo, and between intervening stations. The line from Livingstone to Ndola is double, while the remainder is single, the total length of wire being 1,007 miles. There is also a telegraph line from the Nyasaland border to Abercorn and another from the same border further south to Fort Jameson ; the length of wire, which is single, being 149 and 8 miles respectively. Abercorn is also connected by telephone to Kasama, a distance of 108 miles ; and via Kituta to Kalombo on the Tanganyika border, a distance of 21 miles. The Abercorn-Kituta line is to be extended 7 miles to Mpulungu (Msende Bay) on Lake Tanganyika in the near future and will also be connected with the Tanganyika Territory system at an early date.

A telephone service exists at Livingstone and gives continuous day and night service. The larger switchboard installed during 1927 is fully loaded and the provision of additional accommodation to meet the demand for connections is being considered. There is a trunk line from Livingstone to the Victoria Falls Hotel on the Southern Rhodesia side of the Zambesi. There is also a telephone system at Broken Hill, installed by the Rhodesia Broken Hill Development Company, but it has no private subscribers.

Postal work shows a considerable increase and once more reflects the progress that the country has made. During the year, stamps and embossed stationery were sold to the value of £18,200, as compared with £15,778 in the preceding year. Money orders were issued to the value of £46,687, and £27,694 was paid out in respect of money orders issued elsewhere. The corresponding figures for the preceding year were £41,904 and £27,070. Postal orders issued numbered 44,805, worth £24,407, while £9,557 was paid out in respect of 16,827 postal orders. The cash-on-delivery system was used by an increased number of persons, and 4,532 packets, valued at £12,822, were dealt with under it. 17,833 articles were undelivered and passed through the Returned Letter Office. The following table shows the quantities of the various kinds of mail matter received and despatched during the year as compared with the figures for the preceding two years :—

Received.

	1928.	*1927.*	*1926.*
Letters	2,193,594	1,796,704	1.489,982
Postcards	50,636	34,540	22,308
Newspapers	667,866	605,592	401,340
Book packets	483,496	325,728	354,042
Parcels	49,010	41,080	33,370
Registered articles	60,112	50,284	37.154

Despatched.

	1928.	*1927.*	*1926.*
Letters	2,564,824	2,167,464	1,464,696
Postcards	79,354	51,376	33,540
Newspapers	134,446	108,316	54,574
Book packets	241,124	174,720	124.418
Parcels	12,246	8,216	6.162
Registered articles	75,458	53,924	34.984

D.—Aircraft.

There is at present no established system of air communication in the territory. There are, however, aerodromes which were prepared by the Imperial Government and are maintained primarily for the use of Air Force Squadrons stationed in Egypt. An annual flight is made between Khartoum and Cape Town.

None of these aerodromes has any ground staff or equipment and they are at present in reality no more than landing grounds.

VI.—JUSTICE, POLICE, AND PRISONS.

Justice is administered by the High Court of Northern Rhodesia, and by the Magistrates' and Native Commissioners' Courts subject to appeal to and review by the High Court. During the year the High Court dealt with 96 civil matters, as against 78 in the preceding year, and heard 13 actions and 5 appeals. Five petitions in bankruptcy were presented. Sessions were held at Mazabuka, Lusaka, Broken Hill, and Ndola in May and at Mazabuka, Ndola, Broken Hill, Fort Rosebery, Kasama, and Abercorn in October.

Thirty-two criminal cases came before the Court exclusive of reviews of judgments in the lower Courts : these latter numbered 320, of which 215 were confirmed, 21 quashed, 49 altered, 8 cases sent back and subsequently approved ; in the remaining 27 cases the accused were bound over.

The Civil Police and Criminal Investigation Departments were involved in 5,414 prosecutions during the year. An increase of 641 cases as compared with 1927. This is the largest number of cases on record since the inauguration of the Civil Police in the territory, and in addition to these many cases are tried at stations where there are no police.

The following figures show the convictions for the more serious crimes, as compared with the figures for 1927 :—

	1928.	*1927.*
Murder	18	9
Manslaughter	9	7
Arson	20	34
Forgery	2	14
Housebreaking and Burglary ...	49	53
Rape	16	4
Assault	394	92
Indecent Assault	19	12

93.5 per cent. of the persons prosecuted were convicted.

Central prisons are established at Livingstone, Broken Hill, Fort Jameson, Kasama, and Mongu, and 1,469 persons were committed to the central prisons of the territory during the year. The daily average of prisoners was 321.

Five natives were executed during the year.

There were nine deaths from natural causes amongst native prisoners in the central prisons as compared with 17 for the year 1927. The average sick was 13.77 as compared with 16.11 for 1927.

VII.—PUBLIC WORKS.

During the year under review, approximately £92,500 (excluding " Personal Emoluments ") was spent upon construction and maintenance, inclusive of works carried out under " Research Loan " and " Road Loan," all the expenditure having been curtailed as far as possible pending the reorganisation of the Public Works Department. That reorganisation was commenced in June when the Public Works Department was separated from the Mines Department. The former was placed under the control of a Director and the branches which previously existed under the heads of " Roads " and " Research " were amalgamated with the parent Department and ceased to function as separate entities. Construction has been reduced to a minimum during the period of reorganisation, which has been effected with a view to producing a Department capable of dealing efficiently with the extensive building programme which will require to be undertaken in the near future.

The following major works were completed or are nearing completion :—

Livingstone :

Legislative Council Chambers.
Two houses in police lines.
Barracks.
Warder's cottage.
Maternity wing at the hospital.
Mortuary.
Three bungalows.

Provinces :

Hospital and nurses' quarters at Fort Jameson.
Native hospital at Choma.
Drainage at Lusaka (present scheme only).
Choma School.

The construction programme at the Research Station is nearing completion.

VIII.—PUBLIC HEALTH.

The Government maintains European hospitals at Livingstone, Lusaka, Broken Hill, Fort Jameson, Kasama, and Mongu. Native hospitals are maintained at these places and also at Abercorn, Choma, Mazabuka, Solwezi, Ndola, and Fort Rosebery. In addition to the above many Mission doctors, hospitals, and dispensaries receive annual subsidies from the Government for medical work in native areas.

During the year, 1,045 Europeans and 8,449 natives were admitted to hospital and there were 31 and 459 deaths respectively among them. No complete records as to the number of patients treated at out-stations are available for either European or native population.

934 out-patients attended at the Livingstone European Hospital. The average attendance of new out-patients at the Livingstone Native Hospital is 120 a month, and the total average attendance about 500 a month.

The native out-patient attendance for the whole territory, therefore, greatly exceeds the estimate of 5,000 mentioned last year.

The following diseases call for comment :—

(a) *Sleeping Sickness.*

Three Europeans have been admitted to hospital with sleeping sickness during the year. A fourth case died at Serenje on the way to hospital. He was seen by Dr. Lloyd, a private practitioner, who diagnosed sleeping sickness, but no slides were taken. These cases were all infected in the Luangwa Valley. Two of them were infected while hunting game ; the third case and the fatal case were geologists working in the valley. Dr. Kinghorn toured the Tanganyika sleeping sickness area, but found no cases of sleeping sickness.

Only one native case has been admitted during the year. It is not known definitely that he was ever in the Luangwa valley. It would appear that the natives residing in the valley have acquired some immunity.

(b) *Malaria and Blackwater Fever.*

The following table gives the number of persons admitted to hospital suffering from malaria and blackwater fever, with mortality statistics in each case, as compared with the figures for 1925 and 1926 and 1927 :—

	European	*Malaria:*		*Blackwater Fever:*	
Year.	*Population.*	*Cases.*	*Deaths.*	*Cases.*	*Deaths.*
1928	7,536	304	2	17	5
1927	7,275	272	6	20	5
1926	5,581	262	1	21	7
1925	4,624	211	6	13	7

(c) *Influenza.*

Cases have occurred throughout the territory, but the incidence only assumed serious proportions in Livingstone and Broken Hill.

(d) *Yaws.*

Results of the treatment of yaws with bismuth and sodium tartrate continue to be satisfactory. This disease is chiefly prevalent, as formerly, in the Kasempa, Kafue, and Luapula areas, and also in the Ndola District. Where treatment is available natives apply for it ; many sufferers come from the Zambesi valley for treatment at Choma.

(e) *Leprosy.*

The Native Department statistics for the year show 5,270 known lepers in the territory, an increase of 52 over last year. It is, however, probable that the early cases are not diagnosed.

A system of voluntary segregation in co-operation with the Missionary Societies has been commenced and most useful work is being carried out at Madzi Moyo (Dutch Reformed Mission) and Mwami (7th Day Adventists). Other societies are assisting, and there is in existence an organisation capable of gradual expansion in the future.

(f) *Smallpox.*

This disease has been epidemic during the year and has spread through practically the whole territory. The nature of the disease has been much discussed, and some medical practitioners are still of opinion that there were three diseases prevalent, viz.: chickenpox, alastrim or kaffir-pox, and smallpox. The Principal Medical Officer considers that alastrim or kaffir-pox and variola minor are the same disease. The mortality rate varied considerably in different districts but the disease was usually of a mild type.

Vaccination figures are not available. It was necessary to employ native vaccinators during the epidemic who were not always capable of keeping records and many Missionary Societies assisted in the work. Medical Officers, travelling hurriedly to outbreaks, often performed vaccination campaigns under circumstances that did not permit of records being kept, and generally the pressure of work on the department caused by the epidemic made it impossible to keep complete records. Southern Rhodesia estimated that 75 per cent. of the vaccinations at Livingstone on natives travelling south were successful, but it is considered that this percentage of successful vaccinations is too high for the whole territory.

(g) *Ankylostomiasis.*

Results of careful examinations at Livingstone confirm the opinion that a high percentage of the native population is suffering from hookworm disease. One Medical Officer using the flotation method for 193 cases found 158 or 81.9 per cent. to be positive, while another found 110 positive cases out of 175 examined, or 62.87 per cent. The flotation method was not used for the first 125 cases of the latter.

(h) *Bilharziasis.*

There is no indication that the incidence of the disease is increasing.

(i) *Chest Complaints.*

Pneumonia is probably the principal factor in the native death rate throughout the territory. It is responsible for the high mortality rate in the Livingstone Native Hospital. The Balovale and Mankoya native is particularly susceptible to this disease, and shows little resistance power to it. The disease is the lobular type, and true lobar pneumonia is now rarely met with.

The general health of the European population was good. The following tables show the vital statistics (European) for 1928 and previous years :—

	1928.	*1927.*	*1926.*	*1925.*
No. of deaths	97	72	62	63
Death rate per 1,000	12·87	9·89	11·1	13·7
Deaths of infants under 1 year of age	15	18	7	15
Death rate per 1,000 of births in year	76·92	125	49·3	108

195 children were born, of whom 97 were males and 98 females, which represents a crude birth rate of 25.8 per 1,000 as compared with 20 per 1,000 in 1927.

The native population is estimated at 1,261,972. There is no system of birth or death registration possible at present and consequently no figures are available from which vital statistics may be obtained. Infantile mortality is known to be high and has been estimated to be between 40 per cent. and 50 per cent. of children born.

IX.—EDUCATION.

European Education.

There are five schools providing secondary education up to Standard VII at Livingstone, Choma, Mazabuka, Lusaka, and Broken Hill. Boarding establishments are attached to the schools at Choma and Mazabuka, with accommodation for 25 girls and 20 boys, respectively. The school at Choma opened on the 23rd July and the cost of building was defrayed by the Beit Trustees.

Six schools providing primary education up to Standard V exist at Silver Rest, Chilongolo, Lubombo, Fort Jameson, Bwana Mkubwa, and Luanshya (Roan Antelope Mine).

During 1928, three small aided schools were open for varying portions of the year.

Thirty-two teachers were employed in the schools.

The total enrolment at the close of the school year 1928 was 518 (291 boys and 227 girls), an increase of 38 over the figure for 1927 and 101 over that of 1926. At one period of the year 540 children were attending school.

Native Education.

The education of natives in Northern Rhodesia is at present carried on almost entirely by the Missionary Societies, the Government making some grants in aid and exercising such supervision as is possible through the Director of Native Education, to assist whom two Inspectors have recently been appointed. The most pressing requirement is the training of native teachers and instructors without whom any satisfactory attempt at the education of the native population is impossible. This fact is realised by the Missionary Societies who, encouraged by the grants being made, are endeavouring to bring out more trained European educationists as members of their staffs. Generally the progress made at village schools has not been encouraging, but with the fuller provision of qualified native teachers and sympathetic visitation of mission schools by trained European educationists it is hoped that better results will ensue.

The first departmental examination for teachers' certificates was held in June, 1928, and out of 261 entrants 113 passed.

A generous grant by the Trustees of the Beit Railway Trust has enabled the Department to start at Mazabuka a Jeanes school for training native Visiting Teachers and an agricultural school for training native Agricultural Demonstrators and Instructors. A Principal has been appointed, the layout decided upon, and it is hoped that sufficient buildings will be ready to start the schools in September, 1929.

A further grant of £1,000 a year for five years from the same Trustees has been divided between three missions to assist them in getting out two Agriculturists and one Industrial Superintendent for the training of natives.

The visit of Monsignor Hinsley to Northern Rhodesia during the year should result in increased interest being taken by the two Roman Catholic Missions in this territory in education, and perhaps in increased funds for their educational work.

The London Missionary Society at Mbereshi started, during the year, under Dr. Margaret Morton, its Maternity Training and Baby Welfare Clinic, an enterprise full of promise for the future. Working in conjunction with, and as a development of, the Girls' Boarding School there, it has exceptional opportunities.

Dr. Chisholm trained six educated natives as health agents and sanitary inspectors and they started work under the control of the District Officer in February, 1929. It will be interesting to see what success they have.

Two long tours were made by members of the Department in the Kasempa, Luangwa, and Kafue districts which had not been previously visited by an Education Officer.

The Director made a tour in East Africa seeing Education Officers and some very interesting educational work in Kenya, Uganda, and Tanganyika Territory. The information obtained will be of great assistance in devising a school scheme, which is already under consideration, for Northern Rhodesia.

The following figures of expenditures from Government funds are indicative of the increasing interest and progress in provision of education for the native population :—

	£
1924–25	348
1925–26	3,994
1926–27	6,603
1927–28	6,593
1928–29 (estimated)	9,110
1929–30 (estimated)	10,845

These figures do not include contributions from the Barotse Fund and Beit Railway Trust Fund.

X.—LANDS AND SURVEYS.

During 1929, 81 enquiries regarding land settlement in Northern Rhodesia were received, of which 40 cases came from residents in the territory, 15 from Southern Rhodesia, 14 from the Union of South Africa, 8 from the Belgian Congo, 2 from Kenya Colony, and 2 from Australia. In addition to the above, 85 enquiries were dealt with for surveyed plots at sidings and townships. 52,211 acres were alienated under permits of occupation as new holdings, the total purchase price being £10,041 11*s.* 11*d.* Twenty-six titles to farms were issued during the year in respect of 61,318 acres, and 52 titles for 56 township plots. Thirty-six leases were issued for 38 township plots with option to purchase, the total purchase price being £3,796, two-thirds of which has been paid on issue of the lease. Fifty-two other leases were issued for other areas of farm land. The amount received in respect of timber royalty was £2,337 *2s. 2d.*

During the year a number of farms were surveyed in various parts of the territory. In addition a large number of plots were surveyed at other places including the demarcation of the new township at Choma and additional plots at Ndola. Inspectional surveys were also carried out at Luanshya and Ndola with a view to layout of townships at these places. Several farms are surveyed within the British South Africa Company's areas in the vicinity of Abercorn, and at Abercorn itself a re-survey was carried out to demarcate the areas to be transferred to the Crown for administrative purposes.

District Surveyors are now established at Lusaka and Kasama, an arrangement which facilitates the settlement of survey matters in these districts.

Of the three aerial survey contracts let to the Aircraft Operating Company that of the townships of Livingstone, Mazabuka, Lusaka, and Broken Hill have been successfully completed and the mosaics and photo-prints handed over. These have proved of great value in connection with the survey of these towns and consideration of layout, etc.

The aerial photography of the Zambesi and its tributaries, the Kabompo and Lungwebungu, has been completed, and the mosaics will shortly be delivered. The mapping from oblique photos of portions of the Rhodesia Congo Border Concession is well in hand and fourteen sheets to large scale of the maps have been sent back after referencing for finishing off to the correct scale.

The International Boundary Commission is still at work on the demarcation of the Anglo-Belgian Boundary along the Zambesi-Congo Watershed.

The demarcation by the Survey Department of the Nyasaland-Northern Rhodesia Border along the eastern boundary of the North Charterland Concession was completed and plans lodged and approved.

XI.—LABOUR.

A.—Within the Territory.

Labour conditions within the territory continue to improve, and there is reason to suppose that the flow of able-bodied natives to centres outside the territory is decreasing. The larger mining companies are pursuing a progressive policy of recruiting, and are providing amenities—such as motor transport—for their employees which cannot fail to attract a number of waverers.

The number of Europeans licensed to recruit for work within the territory has risen from 8 to 18 in the last two years. The wages paid by mines and by contractors have practically doubled within the last ten years. Raw labour can now command 18*s*. to 20*s*. a month in the Ndola District.

There is reason to suppose that conditions are improving on farms also ; wages show an upward tendency, but general conditions require to be proportionately advanced before the farmer or planter can seriously compete for the most efficient labour. Fortunately for the farming community there is still a class of labourer content to put up with longer hours and less remuneration in view of the greater freedom and lack of disciplinary regulations on farms.

Statistics show that the average number of natives employed in mining during 1928 exceeded the number employed during 1927 by 1,543. The number of natives actually employed on mines at the end of December, 1928, was 16,073, and the number employed at the end of 1927, 10,946.

In agriculture there was an average decrease of 5,037, mainly due to the slump in tobacco which resulted in a period of great financial stress in the East Luangwa Province.

B.—Without the Territory.

Recruiting of labour in the Awemba and Tanganyika Provinces for work in Tanganyika Territory has practically ceased.

The Rhodesia Native Labour Bureau continues to recruit for Southern Rhodesia, and Mr. R. W. Yule for the Congo mines. Comparative figures of natives recruited and repatriated are given below :—

	Recruited.		*Repatriated.*	
	1927.	*1928.*	*1927.*	*1928.*
R.N.L.B.	4,718	4,022	5,533	4,387
R.W. Yule	6,153	5,176	3,774	5,296
Total	10,871	9,198	9,307	9,683

The contract offered by the Rhodesian Native Labour Bureau is one of twelve month's duration, and that offered by Mr. Yule one of six month's duration.

Deferred pay was distributed by these two agencies to the amount of £52,474 9*s*. 5*d*., as compared with £45,091 16*s*. 2*d*. last year.

It is estimated that 27,650 natives left the territory independently in search of employment during 1928. The estimate for 1927 was 31,438.

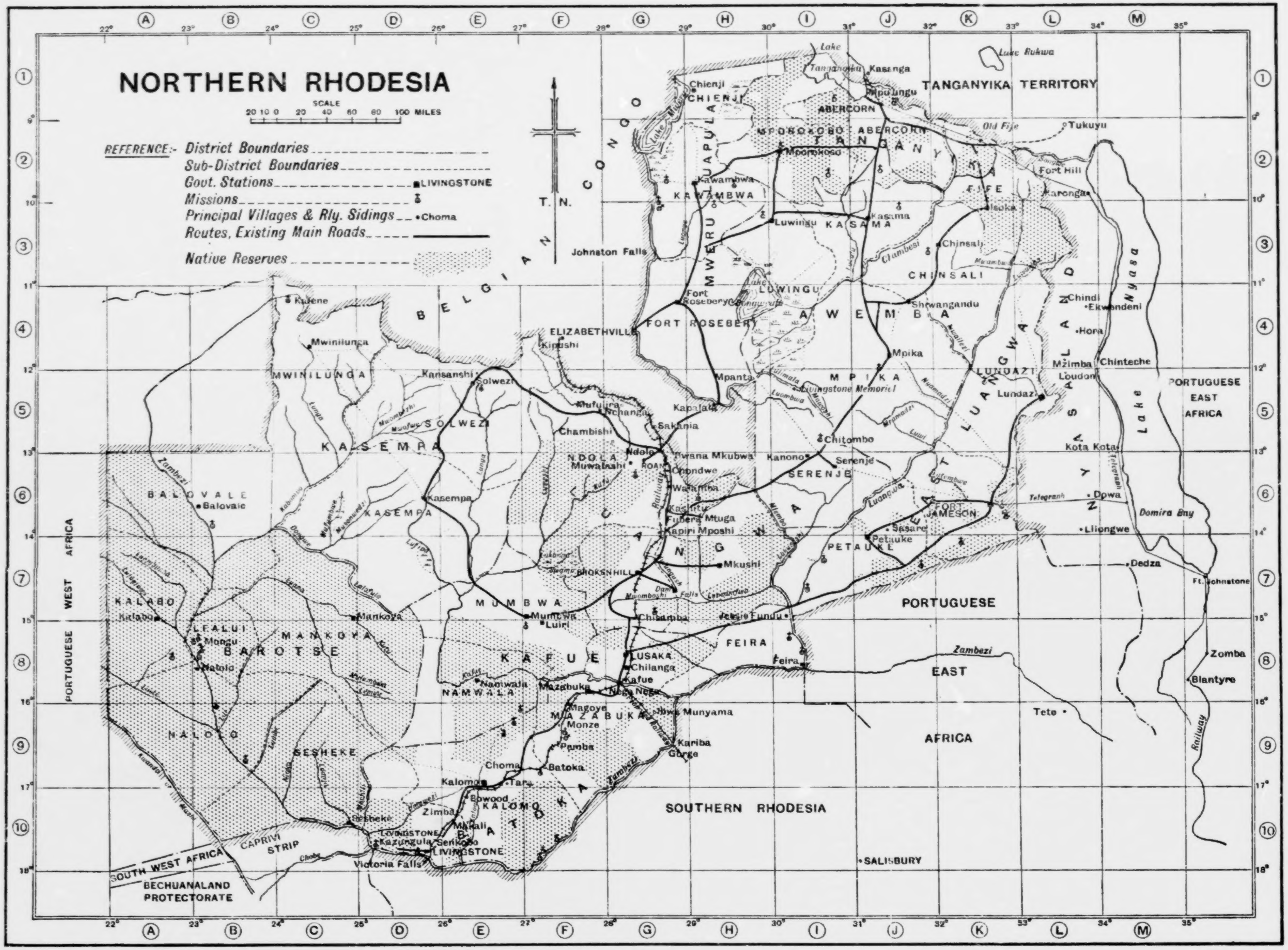
There were 21,338 natives of Northern Rhodesia working in Southern Rhodesia at the end of the year. Some of these had of course been away for a number of years.

XII.—MISCELLANEOUS.

During the year under review a Session of the Legislative Council was held on the 16th April, 1928, at which eight Ordinances in all were passed. These included provisions for the holding of Commissions of Inquiry ; the taking of promissory oaths ; a consolidating law relating to the collection of native tax ; and an enactment empowering the Mashonaland Railway Company Limited to construct a branch railway from Bwana M'Kubwa to the Roan Antelope Mine.

G. A. S. NORTHCOTE,
Chief Secretary.

14*th November*, 1929.



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B

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REPORT FOR 1929.

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NORTHERN RHODESIA.

ANNUAL REPORT, 1929.

PREFACE.

The territory known as the Protectorate of Northern Rhodesia lies between longitudes 22° E. and 33° 33′ E. and between latitudes 8° 15′ S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South-West Africa; comprising in all an area that is computed to be about 287,950 square miles. The River Zambezi forms the greater part of the southern boundary; its two main northern tributaries are the Rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown territory. The curtain of obscurity lifts for a moment when we read the diaries of the Portuguese Governor of Sena, Dr. Lacerda, who led an expedition in 1798 from Tete into Kasembe's country, close to the eastern shores of Lake Mweru. He was followed in the early 19th century by two Portuguese traders, Baptista and José, who brought back stories of the great interior kingdom of the Balunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the 16th to the 19th century. Very few historical facts are known about it, but the name of Muati Yamvo, the dynastic title of the Paramount Chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any very great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and visited the Victoria Falls, that the civilized world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls were Serpa Pinto, Cameron, Selous, and Arnot.

From the very early days when the hordes of migratory Bantu swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasions from stronger tribes on its borders, so much so, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambezi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time statistics are available of seventy different tribes resident in the territory, of which the most important are the Awemba (108,565), Achewa (75,058), Angoni (51,004), Awisa (49,039) in the Eastern Districts; the Barotse (55,250), Batonga (94,545), Balenje (37,662), Balala (40,880), Balovale (32,672), Bakaonde (35,397), Baila (21,485) in the Western Districts; and the Asenga (62,294) and Alunda (60,761) members of which are resident in both Eastern and Western Districts. There are said to be 30 distinct native languages in use, of which Chiwemba and Chinyanja have been adopted for educational purposes in the Eastern Districts and Chitonga (closely allied to Chila) and Sikololo in the Western. In addition to these, Chinyanja is in use as the official language of the police, and is probably the language most generally spoken by Europeans; it is, in reality, a Nyasaland language—the word means " Language of the Lake "—but it is also spoken to some extent round Fort Jameson.

The chief invaders of the early part of the 19th century were the Arabs from the north; the Angoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the territory; and the Makalolo, an offshoot of the Basuto family, who, in the beginning of the 19th century, fought their way from the south through Bechuanaland and across the Zambezi under the noted Chief Sebitoani; they conquered the Batoka, the Basubia, and the Barotse and founded a kingdom which was distinguished by a comparatively high degree of social organization.

The duration of the Makalolo kingdom was short. Soon after the death of Sebitoani, the Barotse rebelled and massacred the Makalolo to a man. The influence of their occupation is still to be seen in the Sikololo language, which is largely spoken amongst the tribes near the Zambezi. The Barotse under Lewanika enlarged their kingdom by conquering one or two of the surrounding tribes, such as the Bankoya and the Balovale. Beyond these limits their authority was both nebulous and ephemeral. In the year 1890 Lewanika asked for British protection and on the 27th June the Barotse Concession was signed, by which Lewanika recognized the Protectorate of Queen Victoria and gave to the Chartered Company certain mining and commercial rights over the whole of his dominion. Lewanika, on his side, received a yearly subsidy of £2,000.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lake Nyasa and Tanganyika over the whole territory ; but with the establishment of a Government post at Abercorn in 1893, the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave raiders were occasionally encountered on the north-east boundary, and skirmishes with them took place as late as 1900 ; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavedom. This social serfdom was brought to an end by an edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Previous to 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland-North-Western Rhodesia Order in Council placed the administration of the western portion of the country by the Company on a firm basis ; and this was closely followed by the North-Eastern Rhodesia Order in Council of 1900 with similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924, when, in terms of a settlement arrived at between the Crown and the Company, the administration of the territory was assumed by the Crown, and the first Governor was appointed on 1st April, 1924.

The currency in use consists partly of English coinage and partly of notes of the Southern Rhodesia issue of the Standard Bank of South Africa and Barclay's Bank (Dominion, Colonial and Overseas) both of which have branches and agencies in this country. The coins and notes of the Union of South Africa are also current at par.

English weights and measures are employed.

There are considerable climatic differences between various parts of the country. The Zambezi, the Luangwa, and the Kafue Valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November before the rains break, when the mean maximum is 97° in the Zambezi valley stations and 85° at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90.3° with a mean minimum of 64.5° while the corresponding figures for the four months of the cold season (May to August) are 78.7° and 46.6°.

The following table gives representative temperatures for the territory experienced during 1929 :

Place.	*Highest mean Max.°F.*	*Month.*	*Lowest mean Min °F.*	*Month.*	*Absolute Max.°F.*	*Month.*	*Absolute Min.°F.*	*Month.*
Livingstone, 3,000 ft. ...	98·8	Oct.	47·9	June	105·3	Nov.	39·0	July
Broken Hill, 3,753 ft. ...	90·8	Oct.	49·0	June	96	Nov.	43	Aug.
Abercorn 5,110 ft. ...	87·1	Oct.	50·3	July	92	Sept. Oct. Nov.	44	July Aug.

Highest Temperature ... 111° Feira in October.
Lowest „ ... 26° Sesheke June and July.

The rainy season usually commences in November and lasts until April, after which month rain is rarely experienced and then in negligible quantities.

Rainfall was much below normal for the closing months of the season, there being a general drought during the month of February. The rainy season towards the close of the year was late in beginning but good normal rains were reported generally.

Temperatures during the cold season were generally below normal but increased to above normal in September and October before the beginning of the rains.

I.—GENERAL.

The illness of His Majesty the King was a subject of grave concern to the people of Northern Rhodesia, who, in common with the rest of the Empire, observed Sunday, 7th July, as a thanksgiving day for his happy restoration to normal health.

A strike on the Rhodesia Railways occurred in February and traffic was at a standstill for nearly three weeks, but the Government had been able to take preliminary measures to provide for the maintenance of essential services and, although considerable economic loss and general inconvenience to the public were incurred, food supplies were nowhere exhausted. The strike occurred in the middle of the rainy season and some apprehension was felt lest the roads might become impassable, but special work was promptly undertaken and in spite of the increased volume of traffic, through communication on the Great North Road was maintained.

The Earl of Athlone, Governor-General of the Union of South Africa, accompanied by Her Royal Highness Princess Alice and Lady May Cambridge, visited Livingstone from the Victoria Falls in October, and Sir José Bebiano, G.B.E., Portuguese Minister for the Colonies, passed through the Protectorate in June on his return from opening the Benguella Railway.

Towards the close of the year an archaeological expedition under the leadership of Professor Cipriani arrived in the territory. They propose to embark during 1930 on an exploration of several areas which are reported to contain relics of palaeontological interest.

The year was for the natives a period of progress and prosperity. Rapid mining development reacted throughout the territory, and the economic situation of natives is steadily improving. The average number of natives in employment during the year was 62,500, of whom over 22,000 were employed in mines. The labour situation was generally satisfactory, though certain employers (notably farmers) complained of periodical shortages.

To natives, the most important event of the year was the passing of the Native Authority and Native Courts Ordinances. It was found impossible to put into practice the system of indirect rule based on these Ordinances before the end of the calendar year but the Chiefs and people were fully informed of the terms of the Ordinances, and appear to welcome the change.

Movement into Reserves continues slowly in the railway line area, and is almost completed in the East Luangwa Province. Movement in the Tanganyika Province will commence in 1930.

The native population of the territory is now estimated at 1,298,651, an increase over the 1928 figure of 36,679 or nearly three per cent.

Immigrants into Northern Rhodesia in 1929, exclusive of natives, numbered 1,861, of whom 1,646 were British subjects. The following comparative figures of immigration, exclusive of visitors, are indicative of the increasing progress being made by the territory :—

1923	1924	1925	1926	1927	1928	1929
260	438	474	756	1,038	1,066	1,861

The majority of these immigrants were absorbed by the mining areas, the white population of Ndola increasing from 1,775 at the end of 1928 to 4,247 at the end of 1929.

Seventeen persons were deported, six being criminals, and eleven being indigents. Of these deportees one was a native. No figures of emigration are available.

Accurate statistics of native immigration are not available, but at least 4,000 appear to have entered the country during 1929 for purposes of domicile, apart from the large number who came to seek employment on the mines. The majority of these immigrants came from Mozambique and Angola.

II. FINANCE.

It is satisfactory to be able to record that the financial year 1929–1930 showed a surplus of revenue over expenditure of £117,762, thus exceeding the result of the previous year, when the series of annual deficits was broken for the first time within the financial history of the territory. The expansion in revenue has been well maintained and reflects a constant development of the resources of the territory with a consequent increase in the prosperity of both Europeans and Natives. Townships in the mining areas have continued to grow and considerable revenue was derived from the sales of Government land therein for which competition remained keen. Following the expansion in revenue, expenditure also increased but was kept in check by the exercise of strict economy.

The revenue from all sources for the year amounted to £672,289, an increase of £130,683 or 24.12 per cent. over the previous year. Revenue from Customs produced £251,330, an increase of £75,366 or 42.83 per cent. Licences, taxes and internal revenue produced £259,194, an increase of £13,702, or 5.58 per cent., mainly due to substantial increases under motor vehicles and stamp duties. The increase in the latter is mainly in respect of a single transaction and does not represent a normal increase. Fees of Court or Office produced £54,655, an increase of £4,320. Post Office revenue of £49,473 shows an increase of 27.54 per cent. The steady expansion of postal business, noticeable in previous years, is being maintained. Rent of Government property realised £11,642 compared with £10,208. Interest, £2,700, is more by £1,401 due to larger surplus balances held. Miscellaneous, £10,088, compares with £9,459 collected in the previous year and is accounted for mainly by increased timber royalties. Land sales realized £33,208, compared with £10,059, an increase of £23,149, owing to sales of plots in the Ndola and Luanshya Townships.

The expenditure for the year amounted to £554,527, compared with the sanctioned estimate of £550,861, or a net excess of £3,666. As in the previous year, economy has been exercised but it has not been possible, owing to various circumstances, either to carry out or to complete all the services for which funds were provided in the estimates. On the other hand, a number of additional services became necessary after the Estimates were approved, notably under Public Works Extraordinary, the actual expenditure on which amounted to £20,119, as compared with the Estimate of £3,750. Personal emoluments show considerable savings mainly accounted for by delay in filling new posts. Estimated and actual expenditure on personal emoluments including pensions were £310,983 and £301,586 respectively, resulting in a saving of £9,397. Actual expenditure under other charges exclusive of extraordinary was £230,781, as compared with the Estimate of £234,106, a decrease of £3,325.

STATEMENT SHOWING THE ACTUAL EXPENDITURE TO THE END OF MARCH, 1930 :—

Head of Expenditure.		*Actual Expenditure to 31st March, 1930.*
		£
I.	The Governor	6,339
II.	Secretariat	7,746
III.	European Education	20,697
IV.	Printing and Stationery	8,489
V.	Native Affairs	18,709
VI.	District Administration	111,055
VII.	Treasury and Income Tax	12,123
VIII.	Customs	7,966
IX.	Posts and Telegraphs	37,120
X.	Lands	2,142
XI.	Survey	12,245
XII.	Audit	3,489
XIII.	Judicial	6,445
XIV.	Legal	4,425
XV.	Northern Rhodesia Police	65,820
XVI.	Prisons	12,945
XVII.	Health	54,716
XVIII.	Veterinary	20,575
XIX.	Agriculture	15,281
XX.	Mines	2,668
XXI.	Public Works	6,927
XXII.	Public Works Recurrent	26,018
XXIII.	Percentage of Tax	8,650
XXIV.	Miscellaneous Services	27,928
XXV.	Pensions and Gratuities	24,949
XXVI.	Interest Account	6,900
	Total Ordinary	£532,367
	Extraordinary.	
XXIX.	Posts and Telegraphs	1,008
XXX.	Public Works	20,119
XXXI.	Land Purchase	1,033
	Grand Total	£554,527

STATEMENT SHOWING THE ACTUAL REVENUE TO THE END OF MARCH, 1930.

	Head of Revenue.	*Actual Revenue to 31st March, 1930.*
		£
I.	Customs	251,330
II.	Licences, Taxes and Internal Revenue ...	259,194
III.	Fees of Court or Office, etc.	54,655
IV.	Post Office	49,473
V.	Rent of Government Property	11,642
VI.	Interest	2,699
VII.	Miscellaneous	10,088
	Total	£639,081
VIII.	Land Sales	33,208
	Grand Total	£672,289

The surplus for the year thus amounted to £117,762.

The following statement gives the financial position as at 31st March, 1930 :—

	£
Excess of Assets over Liabilities at 1st April, 1929 ...	97,219
Excess of Revenue over Expenditure, 1929–1930 ...	117,762
Excess of Assets over Liabilities at 31st March, 1930 ...	£214,981

The following is a statement of Assets and Liabilities as at 31st March, 1930 :—

Liabilities.	£	*s.*	*d.*
Deposits (various)	46,940	5	11
Post Office Savings Bank	7,882	9	6
Administrator-General and Registrar	8,830	12	4
Crown Agents for the Colonies : Overdraft ...	132,000	0	0
Excess of Assets over Liabilities	214,980	0	8
	£410,633	8	5

Assets.	£	*s.*	*d.*
Cash	126,718	0	0
Investments	6,000	0	0
Administrator-General and Registrar	8,830	12	4
Advances pending receipt of Loan Funds ...	225,822	7	2
Advances (various)	17,436	10	7
Unallocated Stores	25,825	18	4
	£410,633	8	5

The Revenue and Expenditure for the last five years were :—

		Expenditure.		
	Revenue.	*Ordinary.*	*Extraordinary.*	*Total.*
	£	£	£	£
1925–26	371,046	372,847	21,298	394,145
1926–27	421,035	421,584	33,867	455,451
1927–28	474,683	475,175	43,631	518,806
1928–29	541,606	496,399	28,769	525,168
1929–30	672,289	532,367	22,160	554,527

In addition to the recurrent and extraordinary expenditure, the Government expended during 1929–1930 the sum of £129,967 on development schemes in anticipation of loan funds under the Palestine and East African Guaranteed Loan. The total amount sanctioned by the Legislative Council is £784,500, of which £96,205 was expended during 1927–1928 and 1928–1929, making a total of £226,172 expended at the 31st March, 1930. This expenditure is at present financed partly by advances from the Crown Agents and partly from surplus balances. The development schemes that are being undertaken by the Government are as follows :—

	Estimated Total Cost.	*Expenditure as at 31st March,* 1929.	*Expenditure during* 1929–30.	*Total Expenditure at 31st March,* 1930.
	£	£	£	£
Civil Buildings	157,500	—	36,119	36,119
Municipal Requirements	42,500	—	18,325	18,325
Communications	241,250	74,584	51,023	125,607
Air Surveys	75,075	3,250	14,061	17,311
Agricultural Development	105,000	18,371	8,348	26,719
Investigation and Survey in relation to further Land Settlement ...	16,000	—	875	875
Development in Native Reserves...	79,000	—	531	531
Miscellaneous	50,650	—	685	685
	766,975	96,205	129,967	226,172

The Banks that operate in Northern Rhodesia are the Standard Bank of South Africa, Limited, which has branches, sub-branches, or agencies, at Livingstone, Broken Hill, Bwana Mkubwa, Luanshya, Lusaka, Mazabuka, Mufulira, Ndola, and Nkana, and Barclays Bank (Dominion, Colonial and Overseas), which has branches, sub-branches or agencies at Livingstone, Broken Hill, Bwana Mkubwa, Chambesi, Fort Jameson, Luanshya, Lusaka, Mufulira, Nchanga, Ndola, and Nkana.

The total amounts deposited with these Banks at the 31st December, 1929, was £782,509, as compared with £545,463 at the 31st December, 1928.

The Post Office Savings Bank has increased its operations, the deposits at 31st March, 1930, amounting to £7,682, as compared with £5,987 at 31st March, 1929. During the year the amount invested on behalf of depositors increased from £5,000 to £6,000. The sums deposited during the year 1929–1930 amounted to £8,499, as compared with £5,569 in 1928–1929. At the 31st March, 1930, there were 503 depositors, a net increase of 105 for the year. The Savings Bank continues to grow in popularity and provides a much needed service.

III.—PRODUCTION.

A.—Land and Agriculture.

Of the total approximate area in the territory of 184,288,000 acres, the North Charterland Exploration Company holds a concession over 6,400,040 acres, subject to the assignment of native reserves amounting to 2,148,440 acres. The British South Africa Company owns, subject to the assignment of native reserves of 1,094,475 acres, three freehold areas in Tanganyika District, comprising 2,758,400 acres. 2,753,023 acres have been otherwise alienated for purposes of European settlement, not including 32,321 acres of land leased without option to purchase. The total area of alienated land is, therefore, 11,943,783 acres, about 6½ per cent. of the whole territory. Most of the alienated land is used for grazing, some of it is cultivated, but a large area is unsuitable for either grazing or cultivation owing to the absence of water. The following table will give a comparative idea of the acreage of the various staple crops under cultivation in the six previous seasons :—

Season.	*Maize.*	*Tobacco.*	*Wheat.*	*Cotton.*	*Total under Cultivation.*
1923–24 ...	42,377	2,462	1,250	2,331	52,243
1924–25 ...	35,568	4,323	2,633	16,702	61,712
1925–26 ...	36,470	4,939	3,387	11,849	60,297
1926–27 ...	44,837	6,719	2,780	693	69,837
1927–28 ...	43,889	7,339	1,819	286	62,928
1928–29 ...	39,215	3,232	2,698	234	67,207

Smaller areas were planted with fodder crops, groundnuts, potatoes, kaffir corn, oats, etc., which are considered minor crops.

The season 1928–29 was, on the whole, not unfavourable. During the normal planting time the rainfall was, in some districts, so small as to cause some uneasiness, but late and adequate rains caused crops to be planted in good time for normal growth. A break in the rains, accompanied by considerable heat, in February, caused some further uneasiness. The crops appear to have been well up to the average, but the second dry spell undoubtedly lowered the yields in some parts of the territory. In the higher altitudes of the north and north-eastern districts, the rainfall was heavier and the crops, mostly grown by natives, were heavy. It is now well established that in the districts referred to heavier rainfalls than in the lower altitudes may be expected.

The maize crop amounted to 201,530 bags the yield being 5.5 bags per acre, as compared with 183,870 bags and an average of 4.9 bags per acre for the previous season. The acreage abandoned fell from 3,836 in 1927–28 to 2,721 for 1928–29.

The acreage planted was 39,000 as compared with 43,000 the previous season. In view of the enormously increased demands for maize in the territory, this decrease of 4,000 acres is to be deplored. On the other hand, the acreage yield increased by .60 bags per acre to 5.5 bags per acre, a yield only once equalled (1927) and never exceeded. This increase is a welcome indication of a tendency to better husbandry. The season, as already pointed out, was by no means an ideal one, and had more favourable climatic conditions prevailed, it is highly probable that a record yield would have been obtained. It is not possible to estimate the amount of maize grown by natives, nor to give more than an approximation of the amount sold to Europeans for the market. It is estimated that some 35,000 bags were so disposed of.

The following table gives maize statistics from 1921 onwards :—

Year ending 31st December.	*Acreage in thousands of acres.*	*Average yield per acre.*	*Yield in thousands of bags.*	*Farm consumption in thousands of bags.*	*Surplus available for sale in thousands of bags.*
1921 ...	29	4·88	145	18	127
1922 ...	25	3·49	99	18	81
1923 ...	38	5·18	199	32	167
1924 ...	35	3·08	129	28	101
1925 ...	36	2·67	95	23	72
1926 ...	36	4·87	177	37	140
1927 ...	44	5·50	250	36	214
1928 ...	43	4·59	183	32	151
1929 ...	39	5·50	201	33	168

After satisfying all local requirements, the maize grown has supplied a considerable amount for export to the Belgian Congo. A large amount of the farm grown maize is handled by a Co-operative Society, which, in the past, has secured large contracts for the Congo mines, and it is hoped that similar contracts will be obtained in the future. Owing to the development in mining areas in the territory, the local demand for maize has increased very considerably and the general position is satisfactory. The average price of farm grown maize, which must be regarded as the territory's staple crop, has been about 11s. 6d. per bag of 200 lb. net.

The tobacco crop amounted to 1,447,329 lb. of which 1,347,640 lb. was produced in the Fort Jameson district. Conditions in the tobacco market, due to the overproduction of the years 1926–1928, remain difficult. In the two markets in which the leaf has been disposed of, the English and South African, there is still accumulated a quantity of tobacco very far in excess of that required for immediate consumption. In the English market, particularly, very large stocks are held and, although it is questionable whether more than a limited quantity is of good quality, the fact causes prices to remain low, and some difficulty is experienced in disposing of new consignments. The assistance rendered to growers in the Fort Jameson area by Government has been continued. It having been proved that the production of poor grade leaf would result in further disaster, every effort has been made to limit that exported to a quality which would be liable to find a market and maintain the reputation which Northern Rhodesia leaf has earned. With this in view, financial assistance has been divided into instalments payable at certain stages of production. It has thus been possible to withhold further advances at any stage when, through neglect in supervision or cultivation, it was evident that the resultant leaf would be of an undesirable quality. The grading and classification have been supervised by the Tobacco Adviser, who was authorized to refuse any leaf which, in his opinion, was unlikely to find a satisfactory market.

The leaf produced during the 1927–28 season, and against which advances had been made by Government, remained in store at the beginning of the year under review. As a result of the efforts of the Trades Commissioner for the East African Dependencies, a firm of brokers became interested and offered to defray the cost of transport to the home market. When the first consignment arrived, the reports received were most satisfactory and subsequent sales at satisfactory prices have shown that the policy adopted has been the right one. The whole of the 1928–29 crop is now in England and is being steadily disposed of.

The crop in the north western districts was produced without any financial assistance from Government and was handled by the Co-operative Society at Choma. The services of a Tobacco Adviser were loaned to the Society for the supervision of the grading. The bulk of the better quality leaf was shipped to England, but a portion was sold in South Africa as was almost the whole of the lower grade leaf. It is possible that these later sales were only effected because of the duty which became payable on Southern Rhodesia leaf, exported to the Union of South Africa, when the Customs agreement lapsed, and no dependence can be placed upon similar sales in the future.

The position of the tobacco growing industry is still, and is likely to remain, one of considerable difficulty. It is now quite proved that, in spite of the advantage of the preference on Empire leaf, the increased consumption is to be slow. The bright leaf, of which a considerable amount is produced, is used in the manufacture of cigarettes and the tobacco in those lines which have the largest sale has been blended for many years so as to obtain a distinctive flavour. The leaf produced in Northern Rhodesia, although from Virginia seed, undoubtedly possesses a distinctive flavour which would be imparted to the cigarette if large quantities were used in the mixture and the majority of the cigarette smokers of the United Kingdom have not yet acquired the taste for Rhodesian tobacco. It is to be hoped and anticipated that increasing quantities of our leaf will be absorbed in the future.

The immediate outlook is much more hopeful as regards leaf for pipe mixtures. Many of these mixtures now contain a large proportion of Rhodesian leaf and there is no indication that the proportion will not still further increase.

The total acreage planted with wheat was 2,698 and the yield 12,141 bags, an increase of 879 acres and 3,387 bags on the previous year. The acreage yield was 4.5 bags. The increase in the acreage planted is satisfactory, but a still greater acreage is undoubtedly indicated. An irrigation expert is to tour the territory to report upon the prospects of irrigation schemes in certain districts, and it is hoped that, in due course, a greatly increased acreage will be available for winter crops under irrigation. It has been pointed out in previous reports that very large quantities of flour are imported each year, and, with a rapidly growing European population in the mining areas, the increase must be steadily maintained. It cannot be expected that the flour produced at the mill at Lusaka can immediately enter into favourable competition with the carefully blended and established brands now offered for sale. It is equally certain that a much greater amount of wheat must be available before an organized attempt can be made to blend and establish a local flour. In the meantime the demand for the output from the Lusaka mill is steady and much larger quantities could be disposed of. During the period January to November, 1929, flour to the value of £24,310 was imported. It is hoped that an attempt will be made to endeavour to obtain some of this trade for Northern Rhodesia growers. Comparative figures for wheat for the past five years are as follows :—

Year.	*Acreage Planted.*	*Yield in Bags of 200 lb. Net.*
1925	2,633	9,895
1926	3,387	11,687
1927	2,780	10,586
1928	1,819	8,754
1929	2,698	12,141

As regards cotton-growing, experience has shown that the variety of seed used in the past is unsuitable for local conditions. The policy of Government, therefore, is to persuade farmers severely to limit the acreage put under cotton until a satisfactory variety of seed is available. To this end, experimental work is being actively prosecuted at the Research Station in close liaison with departments of other Governments and stations of the Empire Cotton Growing Corporation in Africa. The information gained during the season 1928–29 was most satisfactory and the position is rendered more hopeful by the fact that the Empire Cotton Growing Corporation have seconded an officer to the department who is devoting the whole of his time to the problem. As a result of his work, this officer considered that the time had arrived when somewhat larger experiments could be tried, and there have been planted during the present season a number of four-acre plots in various districts. In addition the Agricultural Officers at Abercorn and Fort Jameson are supervising further experiments at those stations. It may be stated that the officer specially seconded is satisfied with the progress made, and the information available is such as to cause a feeling of increasing optimism. The work will be continued in the endeavour to improve still further those varieties which appear to be suitable.

Up to the present, coffee planting has been in an experimental stage. It may now be said to be definitely established as an industry. During the season 1926–27 the amount produced was more than six short tons. Almost the whole of this was exported to the United Kingdom and the price obtained was most satisfactory. Last season, the amount produced was increased to a total of nearly seven short tons. Increased planting is taking place in the Abercorn district where, during the past two years, twenty new settlers have taken up land with the intention of planting coffee. There appears to be no reason why coffee planting should not become of considerable importance.

The citrus export trade is increasing rapidly. Last season 3,873 cases of fruit were exported, of which a large proportion went to the Belgian Congo.

Crops grown by natives are at present confined to food-stuffs for their own consumption, though in certain districts, especially those in proximity to the mines, additional quantities are grown for sale. Preliminary investigations have been made with a view to ascertaining whether other economic crops could be introduced to areas remote from the railway line and the means to enable the natives to produce such crops at their own villages.

It is becoming more and more evident that the exodus of youths and men from the villages, consequent upon the greatly increased demands for labour, is having a serious effect upon native agriculture. Although the major portion of the cultivation of crops has always fallen upon the women, the men have been responsible for the work in connection with opening up new lands for gardens. It has been reported, from certain districts, that the number of able-bodied men remaining in the villages is so small that the women have been compelled to cultivate old gardens in which the soil has become impoverished. The crops reaped have, naturally, been poor, more particularly in those cases by no means rare, where rotational methods have been absent and crops such as maize and *male* have been grown for some years in succession.

There is every indication that the demand for labour will still further increase and, therefore, the problem of opening up new gardens becomes more acute. The problem will, however, be more easily solved if proper rotations of those crops which can be used as food-stuffs are instituted. This type of farming is just as essential for the prosperity of native as for European agriculture. In some districts, a certain rotation is evident in the native methods and the aim should be the adoption of such as a basis and the introduction of still further progressive principles.

Native agricultural produce which is available for local markets is practically limited to that grown in the vicinity of the railway line. Under present conditions, the native has no means of transport over long distances. Certain districts are, however, being opened out and, in some cases, markets are becoming available where such had not been anticipated. It is considered that there are certain natives who would prefer life in the village to that in the compounds of industrial undertakings. When the native becomes too old for the more arduous labour on the mines, he will have little means of supporting himself and his family under present conditions or of providing for those wants which have been occasioned by his sojourn in more civilized surroundings.

The wants of the territory are increasing rapidly and large quantities of food-stuffs can be absorbed which can be produced by natives. A very considerable amount of the ground nuts used as rations on certain mines have been purchased in, and transported from Dar-es-Salaam. The expenses incurred in the sea voyage to Beira, and the long haulage from that port to Ndola, would allow such a margin as to enable producers in the territory to obtain a certain profit. In many areas where ground nuts and other produce could be grown, no means of transport exists at present.

The rainy season of 1929 was characterized by considerable variations in the total rainfall in the various parts of the territory. The total rainfall is detailed in Appendix " A." In the higher altitudes of the Tanganyika Plateau good rains were experienced. In Barotseland, the Guimbe Valley, and other outlying districts, the fall was satisfactory, but in the more settled areas of the western portion of the territory, and in the areas immediately adjoining them an almost total drought was experienced during February. The relief from the heavy rains, at a period when the grazing was already ample, resulted in cattle becoming in good condition. The rainfall received in March was insufficient and the result was that, towards the end of the dry season, animals in some parts commenced to lose condition because of the scarcity of grazing, particularly during those months when cold nights were experienced. Many ranchers had difficulty in procuring sufficient grazing to carry their cattle until the improvement of the pasture, following the early rains of the 1929–1930 season, became apparent. This was especially noticeable where the ranches were heavily stocked. In those districts and on those farms where cattle form only a portion of the general operations, cattle remained in comparatively good condition.

At the end of the year the rainfall in all districts had been sufficient to cause adequate grazing and stock was improving rapidly.

It can quite safely be said that never in the history of the territory have prospects in the cattle raising industry been so bright. The year has been characterized by extremely good prices and sufficient buyers, and yet little organized effort is evident, except in isolated cases, to make such arrangements as might tend to result in a more adequate supply of slaughter stock becoming available in the future.

For years now, the scarcity of animals in good condition during the later months of the dry season has been most marked, and for those animals which were offered for sale high prices have been received. There is no doubt that the lessons of the past years have caused some of our cattle owners to endeavour to arrange that the animals in the best possible condition shall be available during the period indicated. During the year under review, when the price of good slaughter bullocks was in the neighbourhood of £8 per head, one breeder received over £10 per head for animals which had been selected and kept on the best pasture available on the ranch.

The practice of providing extra food-stuffs during the months when grazing is at its worst, is, of course, hardly practicable upon ranches, but upon general farms it could be followed with benefit to the owner and to the industry. In the rotation of crops which is so essential in general farming operations there are many which can be utilized as foodstuffs. On those farms where grading up has been practised for some years, the extra feeding becomes essential. There is no doubt that the state of the pastures is insufficient to maintain highly improved cattle in good health during the whole of the year. The results of investigations in other Colonies have shown that a mineral deficiency exists in the soils and it is extremely probable that a similar deficiency exists in Northern Rhodesia. An endeavour will be made to solve this problem but, in the meantime, it is obvious that the grading up of stock cannot be carried on beyond a certain point if the animals are to be reared under ranching conditions.

It has been recognized for some time that improvements are necessary in the cattle industry in the territory and the Government arranged a scheme whereby such assistance could be given. The condition of the territory's finances, in the past, has been such that funds were not available for the work indicated. Increasing prosperity, due in no small measure to the development of the mining industry in the north, has changed the situation. The Governor announced, at the November session of Legislative Council, that sanction had been received for a sum of £160,000 to be devoted to assisting the agricultural industry. A small amount of this sum will be utilized for obtaining herds of cattle, to be kept at the Research Station, for the investigation of the genetic and nutritional problems to which reference has already been made. The remaining funds will be used, in the form of loans, repayable over long periods and at a low rate of interest, for

(*a*) The erection of dipping tanks;
(*b*) The erection of fencing;
(*c*) The importation of breeding stock.

An amount has been reserved for the improvement of the native cattle industry. In addition, a sum of £4,000 is available for equipping a creamery. It is felt that, with the assistance now available, a considerable advance will be made in the cattle industry of the territory. Well dipped, well nourished cattle will be in a position to withstand, to a greater extent, the attacks of disease, and it is anticipated that the mortality, at present not unduly high amongst cared-for stock, will be further lowered.

The number of native-owned stock in the territory is estimated at 378,569 head but this figure is only approximate; the difficulty in obtaining a correct estimate being increased by the fact that many tribes resent, and endeavour to prevent their cattle being counted. Considerable apathy is displayed by the majority of natives towards the welfare of their animals. The native looks upon his cattle as a source of wealth, and it might be thought that an effort would be made to adopt those primary principles of cattle-mastership which would be to their advantage, but in all too few instances is evidence of this to be found. There can be no possible doubt as to the potentialities of native-owned stock and, although every attempt has been made in the past to give such instruction to the owners as would tend to bring about a better state of affairs, it has only recently become possible to attempt energetic practical measures. It is realized that before the introduction of new blood can take place the standard of cattle-mastership must be improved, and with this in view Government has decided to build tanks for dipping stock. The average native does not understand the value of dipping and is inclined to be prejudiced against it. The strictest supervision will be exercised over the dippings as it is imperative that accidents be avoided from the first.

The inspectors in charge will endeavour to supervise the cattle in the neighbourhood, to teach natives the necessity for building kraals in suitable places and for choosing the grazing which will be utilized during the various months of the year, to emphasize the benefits which will follow the segregation of immature heifers and the sale of old cows and, generally, will attempt to bring about a greater interest in the welfare of the herds. At a later date, slightly improved bulls will be introduced and the compulsory castration of all male animals, except those suitable for breeding purposes, will if possible be brought about. The grading will have to be a very slow process and great importance is attached to a policy of selection for many years to come. A too sudden lowering of the natural immunity to disease, especially those which are tick-borne, must be avoided. To what extent the native will respond to the policy remains to be seen. In many ways he has shown that he is not unappreciative of certain reforms which result in financial benefit to himself. It may be and it is hoped that the actual examples of the good resulting from the policy which is now to be begun will cause an awakening of the native to the advantage of bestowing greater care and attention upon his herds.

If all the animals available in the territory for slaughter purposes were placed upon the market, only a proportion of the demands available to our cattle owners would be met and evidence is available to the effect that much greater numbers will be required in the future. It is estimated that over twenty thousand head of slaughter stock will be required to meet all local requirements during the next twelve months. The requirements of the Belgian Congo, if no greater than the number imported during the year under review, will be thirty thousand head. The markets open to our stock owners will, therefore, absorb over fifty thousand head of slaughter stock during the year 1930. Some ten years only have elapsed since Northern Rhodesia supplied all the cattle for both the markets named, but now the territory will not be able to supply her own demands for many years to come.

In order to assist stock owners sums of money are available as loans to assist in the purchase of breeding stock for importation to the territory. The whole of the freightage on pedigree animals purchased in the United Kingdom will be defrayed from funds provided by the Government and the Empire Marketing Board, and half the freightage on approved animals from Southern Rhodesia or the Union of South Africa will be repaid to importers by Government. It is hoped that, by reason of this inducement and the assistance available for the erection of fencing and dipping tanks, together with a general advance in the methods of animal husbandry, a general improvement in the size and quality of our herds will result and that, in the future, we may be in a better position to take advantage of the increasing markets which have lately become available.

B.—Mining.

Bwana Mkubwa Mine.—This mine has continued to work the large tonnages of oxide ore throughout the year and the treatment plant has given satisfactory results. Diamond drilling has been carried on to prospect the ore-body with a view to determining the future prospect of sulphide ores when the present opencast ores are depleted.

Roan Antelope Mine.—This mine has carried on an active drilling campaign throughout the year and the results obtained in the Roan Antelope area, where the work has been mainly confined to the deeper centre holes of this syncline, have shown approximately the same widths and grades of ore as the neighbouring shallow holes. On the westerly extensions of the Roan Antelope Mine, known respectively as the Roan Extension and Muliashi, diamond drilling has been carried out and has furnished very satisfactory data about ore-bodies. The Roan Antelope Mine, as a result of this data, exercised their option and purchased both properties towards the end of the year.

Underground working on the mine has been carried on steadily, the drives on the various levels being worked from several shafts and development in the ore-bodies is in progress.

The sinking of the main haulage shaft, a large five-compartment vertical shaft, has commenced ; this shaft is being equipped with steel setts.

The ore-body from development work has been treated in the pilot plant and several tons of concentrates have been obtained. The pilot plant tests carried on during the year have confirmed the previous year's result of satisfactory treatment of the sulphide ore and the main plant is to be erected at an early date for the treatment of 5,000 tons of ore per day. The plant is expected to be in operation towards the end of 1931.

Nkana Mine.—The surface and underground work on this property is being carried on rapidly and the branch line from Ndola will be completed early in the coming year. Diamond drilling to the north-west has proved a large tonnage of payable ore in the Mindola areas. These operations will be continued, and it is anticipated that the results will at least double the tonnage of ore reserves for the mine.

In anticipation of the requirements of a plant designed to treat 5,000 tons of ore a day development work in the mine is being carried on through several shafts, and a large five-compartment vertical shaft is to be sunk shortly to handle this quantity of ore. Three 400 horse-power producer gas engines using wood fuel have been installed to meet power requirements.

Nchanga Mine.—The activity of the Nchanga Mine has been mainly confined to shaft sinking and diamond drilling. The shafts have been sunk to the required depth and development work from these will be commenced when the new power units are in commission.

The branch line to Nkana is to be extended to this property and will pass through Chambishi on the way. Diamond drilling during the year has proved a large tonnage of good grade ore to the west of the present workings which will ensure the possibility of large scale production at no distant date.

Two vertical shafts have been laid out and will be commenced early in the year.

All the ore-bodies on the mine are mixed oxides and sulphides and an extensive study of a suitable metallurgical treatment for the ores on the mine is being carried out.

Mufulira Mine.—A branch line has also been constructed from Mokambo in the Belgian Congo to the Mufulira Mine. The ore-body on this mine is of exceptional width and very large tonnages of ore reserves have been proved by diamond drilling.

Four incline shafts were sunk in the ore-body, all of which encountered water difficulties, with the result that two of these shafts have now been stopped.

A plant designed to treat 5,000 tons of ore a day is being erected with the necessary shops and very rapid progress is being made towards production.

Kansanshi Mine.—Underground development work on this mine has been carried on throughout the year on the high grade ore-bodies that run through the property, and very satisfactory results have been obtained, showing that in spite of the narrow width of the ore the high grade is consistent.

Very thorough experimental work is being carried out to determine a suitable method of metallurgical treatment and design of plant.

The estimate of the ore reserves of some of the large copper mines have been calculated as :—

			Long Tons.	*Per cent. Copper.*
Bwana Mkubwa			2,624,200	3·91
Nkana			56,400,000	4·00
Roan Antelope			67,500,000	3·33
Mufulira			45,000,000	4·68
Nchanga				
Original ore bodies :—				
	Long Tons.	*Per cent. Copper.*		
	2,278,000	4·21		
	8,193,000	3·74		
New ore body	54,170,000	3·77		
			64,641,000	3·78
	Total ...	...	236,165,200	

Broken Hill Mine.—This mine has increased the size of its hydro-electric plant and a larger output of zinc is being obtained. Zinc was produced throughout the year but the lead ore down to the present water level is now exhausted, although very large reserves exist below this level.

Vanadium is to be produced regularly as soon as a treatment plant is in operation. *The Star Zinc Mine* produced high grade zinc-ore which was shipped direct throughout the year for treatment in England.

The Luiri Gold Areas have increased their power plant and pegged off 189 locations, chiefly for gold. A cyanide treatment plant has been erected and will be in operation early in the new year.

Concessions.—The result of the year's prospecting and development work in the Nkana Grant Areas has led to the location of 22 areas by the Rhodesia Selection Trust, Limited; these were registered towards the end of the year.

The remainder of the territory open to prospecting in the north-east has been included in the Loangwa Concessions and systematic geological prospecting will be undertaken.

The Rhodesia Congo Border Concessions have continued their geological work in the area of their concession and several good indications of copper have been located.

Coal.—Coal prospects have been a feature during the year and drilling is being carried on in two areas; one in the Zambezi Valley, south-west of Mazabuka, and the other to the north of Mumbwa.

The aggregate capital of the mining companies operating in this territory is approximately £19,000,000.

The following table shows the mineral production during 1929:—

Mineral Production, 1929.

				£	*s.*	*d.*
Gold	699.13	ozs.	F.	2,969	13	0
Silver	2,248.96	ozs.	A.	225	13	0
Copper	5,474.74	tons	A.	408,258	11	0
Lead	1,635.00	tons	A.	38,852	6	0
Zinc	22,229.50	tons	A.	547,964	8	0
Vanadium	131,290	lb.	B.	93,544	2	0
Manganese Ore	1,849.00	tons	C.	2,773	10	0
Iron Ore	3,556.07	tons	D.	1,778	2	0
Mica	5,919	lb.	E.	1,479	15	0
				£1,097,846	0	0

A.—Average London Market Price.
B.—Value at 14s. 3d. per lb. Vanadium metal.
C.—Value at Mine, £1 10s. per ton. Used in Zinc Works.
D.—Value at 10s. per ton. Used in fluxing.
E.—Value at 5s. per ton.
F.—Value at £4.24773 per oz.

IV.—TRADE AND ECONOMICS.

Northern Rhodesia is in the curious position of being divided into two Customs Zones. The Northern zone, which is known as the Congo Basin, is governed by the conditions of the Berlin Act of 1885. Goods imported into this zone, therefore, are not subject to the terms of the Agreement with Southern Rhodesia and the Union of South Africa, though the duties imposed are in almost all instances similar to those imposed in the Southern zone, except that equality of trade is granted to all nations. The Zambezi Basin zone, as the latter area is called, is subject to Customs Agreements with Southern Rhodesia and with the Union of South Africa, which includes for the purposes of Customs Agreement, the High Commission Territories of Bechuanaland, Basutoland, and Swaziland.

Under the existing Agreement, Northern Rhodesia receives 12 per cent. *ad valorem* on removals from the Union of South Africa of imported goods, and 6 per cent. on removals of South African manufactured goods; unmanufactured produce of South Africa is not subject to duty. The minimum sum payable by the Union to this territory is £12,500 per annum. The Union of South Africa charges the actual duty at Union rates on removals from Northern Rhodesia of imported goods, but allows entry free of duty of Northern Rhodesia produce.

On imported goods removed from Southern Rhodesia to Northern Rhodesia the duty is calculated at Northern Rhodesia tariff rates, a deduction of 5 per cent. being made in the case of goods cleared at the Port of Beira by the Southern Rhodesia Customs.

With regard to products and manufactures, there is a free interchange of these between Southern and Northern Rhodesia, but on Union manufactures in Southern Rhodesia, which are subsequently removed to Northern Rhodesia, Southern Rhodesia passes credit to this Government at the rate of 6 per cent. on the original Union value.

Northern Rhodesia grants preferential rates of Customs duty on all goods (with the exception of certain articles the principal of which are cattle for slaughter, tea, coffee, cocoa, chicory, rice, motor spirit, lubricating and illuminating oils, tobacco, wines, and spirits) shown to have been grown, produced, or manufactured in the United Kingdom or British possessions granting equivalent reciprocal privileges. Such preferences vary in extent from 16 per cent. to 3 per cent. *ad valorem*.

The following summary furnishes a comparison of the value of imports which originated from British and from foreign countries during the years 1927 to 1929 :—

Imports from :	1929	1928	1927
	£	£	£
Union of South Africa	327,893	245,909	217,063
Southern Rhodesia	534,366	371,469	261,093
United Kingdom and other British possessions	1,679,000	1,135,775	987,502
Total British Empire	2,541,259	1,753,153	1,465,658
Foreign Countries	1,061,158	613,164	491,480
Total Merchandise	£3,602,417	£2,366,317	£1,957,138

For the purpose of illustrating the routes of trade, the following table shows the value of merchandise received from the Union of South Africa, from Southern Rhodesia, and direct from overseas during the years 1927 to 1929 :—

Imports from :	1929	1928	1927
	£	£	£
Union of South Africa	989,649	572,635	591,802
Southern Rhodesia	2,193,304	1,444,766	1,004,646
Imported from overseas	419,464	348,916	360,690
Total	£3,602,417	£2,366,317	£1,957,138

The following table illustrates the comparative value of the principal items of imports during the years 1927 to 1929 :—

	1929	1928	1927
	£	£	£
Animals (living)	27,668	28,965	41,651
Foodstuffs, etc.	302,675	200,722	173,630
Ales, Spirits, Wines, etc. (Potable)...	108,888	86,160	76,320
Spirits (Non-potable)	1,344	867	616
Tobacco	59,336	44,624	38,827
Textiles, Apparel, Yarns, Fibres ...	592,442	471,114	395,548
Metals, metal manufacturers, Machinery and Vehicles ...	1,595,084	902,110	717,710
Minerals, Earthenware, Glasses and Cement	205,014	161,993	97,205
Oils, Waxes, Resins, Paints and Varnishes	184,021	102,982	97,149
Drugs, Chemicals and Fertilizers ...	80,256	89,396	68,680
Leather, Rubber and manufactures thereof	87,907	53,825	46,086
Wood, Cane, Wicker and manufactures thereof	152,851	82,311	62,685
Books, Paper and Stationery ...	52,967	33,940	26,707
Jewellery, Time-pieces, fancy goods, etc.	49,959	42,027	34,124
Miscellaneous	102,005	65,281	80,200
	£3,602,417	£2,366,317	£1,957,138

The following summary furnishes a comparison of the value of exports to British and to foreign countries during the years 1927 to 1929 (excluding articles exported through the post and specie).

	1929	1928	1927
	£	£	£
Union of South Africa	84,454	117,966	193,824
Southern Rhodesia	79,426	77,441	77,221
United Kingdom and other British possessions	470,058	374,644	272,045
Total British Empire	633,938	570,051	543,090
Foreign Countries	260,895	272,536	202,504
Total	£894,833	£842,587	£745,594

The following summary furnishes a comparison of the value of exports to the Union, to Southern Rhodesia, to United Kingdom and other British possessions, and to foreign countries, distinguishing domestic exports and imported goods re-exported, during the years 1927 to 1929 (excluding articles exported through the post and specie) :—

Domestic Exports.	1929	1928	1927
	£	£	£
Union of South Africa	71,676	108,105	183,611
Southern Rhodesia	35,904	38,725	35,848
United Kingdom and other British Possessions	460,665	367,545	264,750
Foreign Countries	250,882	269,394	199,735
Imported Goods Re-Exported.			
Union of South Africa	12,778	9,895	10,233
Southern Rhodesia	43,522	38,716	41,373
United Kingdom and other British Possessions	9,393	7,065	7,295
Foreign Countries	10,013	3,142	2,769
	£894,833	£842,587	£745,614

The following table illustrates the comparative value of the principal items of domestic exports for the years 1925 to 1929 :—

	1929	1928	1927	1926	1925
	£	£	£	£	£
Animals (living)	8,928	22,456	36,205	52,606	57,723
Hides, Skins and Horns ...	39,165	44,898	21,831	15,591	14,420
Ivory	8,922	9,911	8,214	7,117	8,280
Butter	551	431	1,445	1,219	806
Wheat	13,855	9,218	13,546	18,575	5,330
Maize, including other cereals in the grain ...	25,567	29,964	59,711	31,246	29,513
Maize Meal	17,781	23,488	18,437	10,566	9,461
*Pulse	1,040	185	51	497	1,167
Tobacco (unmanufactured)	70,310	100,848	240,568	155,832	99,122

* Export of pulse was very small in 1927 and 1928 and therefore not shewn in reports for those years but as the figure for 1929 exceeds £1,000, the figures for the three years have now been inserted.

	1929 £	1928 £	1927 £	1926 £	1925 £
Cotton (raw)	158	238	—	4,746	6,276
Copper, Ore and Concentrates	6,018	9,063	—	—	—
Copper, Bar and Ingots ...	230,698	231,304	133,115	23,566	1,000
Lead	37,729	71,103	88,652	43,284	67,105
Vanadium	16,389	3,457	6,749	4,498	35,350
Other Ores	34,904	13,277	1,165	2,047	6,240
Zinc	262,611	—	—	—	—
*Other Metals	—	166,866	—	—	—
Gold	3,441	1,815	1,690	2,697	5,281
Silver	12	23	9	16	20
Lime	940	948	1,004	1,072	732
Wood, manufactured and partly manufactured ...	20,316	26,037	30,509	64,794	11,477
Articles through the post...	4,903	4,481	9,911	1,911	1,005

* Approximately 90 per cent. of this value consisted of zinc.

The trade balance of imports over exports amounts to £2,702,681 as compared with £1,519,249 in 1928; increased importations in connexion with the mining industry again account for this large balance in favour of imports.

The combined value of trade imports and exports for the year 1929 amounted to £4,502,153 as compared with £3,213,385 in 1928 and £2,712,663 in 1927.

The value of merchandise imported during the year under review amounted to £3,602,417 as against £2,366,317 in 1928, an increase of £1,236,100 or 52.2 per cent.

In addition Government stores to the value of £24,990 and specie to the value of £42,241 were imported.

Exports of Northern Rhodesia were valued at £899,736 as compared with £847,068 in 1928, an increase of 6.2 per cent.

The above figures indicate further satisfactory progress in the trade expansion of the Colony, but exports generally are not yet increasing to any appreciable extent. Metals and metal manufactures exported amounted in value to £617,971 in 1929 as compared with £514,308 in 1928 and £254,873 in 1927. It will be noticed that the increase in 1928 was considerably greater than the increase in 1929, but the development in the mining industry is better indicated by the large importations of mining machinery and material which are shown during the past year, and so far as the producing stage is concerned the industry is still in its infancy.

The position regarding our exports of unmanufactured tobacco is again very disappointing and the cause must be put down as last year to the continued slump in the markets overseas.

The following are the ports of entry into and exit from Northern Rhodesia :—

Livingstone, Ndola, and Fort Jameson (Free Warehousing Ports); Mwinilunga, Nchanga, Balovale, Kazangula, Abercorn, Fort Rosebery, Isoka (Fife), Feira, Chiengi, Mpika, Kansanshi, Mokambo, Kawambwa.

V.—COMMUNICATIONS.

A.—Railways.

The principal means of communication is the railway, which, after leaving Livingstone, runs in a north-easterly direction, dividing the country into two nearly equal portions. It is now owned entirely by the Rhodesia Railways Company, which has purchased the section from Broken Hill to Sakania formerly owned by the Rhodesia-Katanga Junction Railway and Mining Company, and is part of a single system which stretches from Vryburg in Bechuanaland and from Beira in Portuguese East Africa through Southern Rhodesia to Sakania in the Belgian Congo. This single line enters the Protectorate by means of a remarkable bridge spanning the Zambesi River gorge at a height of nearly 400 feet and about 400 yards below and within sight of the Victoria Falls. It passes Livingstone, crosses the Kafue River at the station of that name, and enters the Belgian Congo slightly north of Ndola. The total length of line within the territory is 507 miles.

There is a branch line to the Roan Antelope Copper Mine from Ndola, about 25 miles in length, which was opened for traffic at the end of December, 1928. The construction of the Ndola–Nkana Branch Railway reached the Kafue River thirty-five miles from Ndola by December, 1929, and is expected to be completed by May, 1930. This railway is being continued to Nchanga, 43 miles from Nkana, and is expected to be completed about the middle of 1931. In addition to the above branch railways, there is a railway constructed by the Mufulira Mine running from Mokambo in the Belgian Congo to Mufulira, a distance of 17 miles.

B.—Roads.

With the exception of that portion of the Great North Road between Victoria Falls Railway Bridge and Livingstone, a distance of seven miles, and the private road of the Broken Hill Mining and Development Company leading from their plant and mine to the hydro-electric power station on the Mulungushi River, some thirty-six miles away, there are no macadam constructed roads in the country, and these two only can be described as "all-weather" roads. All the other roads are earth-roads, and though the smaller rivers are crossed by bridges made either of bush timber or occasionally of steel rails and the roads are embanked and sometimes gravelled where they cross marsh land, traffic is liable to be interrupted for at least two months in the year, usually in February and March.

In the last three years the mileage of roads passable for from eight to ten months in the year has very considerably increased. The following are the main lines of roads now open :—

The Great North Road, which runs from Victoria Falls via Livingstone, Mazabuka, Lusaka, Broken Hill, Serenje, Mpika, Chambesi River, where the crossing is effected by pontoon, and Kasama to Abercorn and Lake Tanganyika, a distance of about 1,000 miles. A branch road from near Abercorn to Mwenzo connects with the Tanganyika system and provides direct communication with Tanganyika Territory and Kenya.

A fortnightly steam-boat service has been established by the Tanganyika Government on Lake Tanganyika.

S.S. "Liemba" (1,200 tons) calls at Mpulungu (26 miles from Abercorn) fortnightly and a road has been made between Abercorn and this port. The "Liemba's" sailings are timed to correspond with the arrivals and departures of trains at Kigoma, thus affording through communication from North-Eastern Rhodesia to the port of Dar-es-Salaam.

The Rhodesian-Congo Border Road leaves the Great North Road near Kapiri Mposhi, and runs in a north-westerly direction via Ndola, Nkana, and Nchanga to Solwezi, a distance of about 312 miles. A branch road gives access to the Belgian Congo and Elizabethville. From Solwezi a road runs in a south-westerly direction to Kasempa, and is now being extended to Mumbwa, the Lunga and Kafue Rivers being crossed by pontoons. This road will then connect with the Great North Road at a point between Broken Hill and Lusaka.

A road known as the Great East Road, which runs from Lusaka to Fort Jameson and then to the Nyasaland Border, where it joins the Nyasaland road system, is being improved, a certain number of bridges being built. The central portion of this road is being relocated to improve the gradients.

Communication with the Mweru-Luapula District is maintained by a road that crosses the pedicule of the Belgian Congo from Ndola to Kapalala.

All these roads have numerous branches leading to farms, missions and Government Stations or other points of European settlement in the various districts through which they pass.

The authorization of the East African Loan, in which Northern Rhodesia shares, has made a scheme of arterial road construction possible. The continual development of the six-wheeled lorry and the roadless tractor is being watched with interest; and it is anticipated that the next few years will see a complete revolution in the existing transport position.

C.—Posts, Telegraphs, and Telephones.

Telegraphic communication exists between the Victoria Falls Bridge and the Belgian Congo, and between intervening stations. The telegraph line now extends beyond Ndola to Luanshya, 26 miles distant. The line from Livingstone to Ndola is double, while the remainder is single, the total length of wire being 1,023 miles. Telegraph lines linking up Mufulira, Nchanga, and Nkana with the system are under construction. There is also a telegraph line from the Nyasaland border to Abercorn and another from the same border further south to Fort Jameson, the length of wire, which is single, being 149 and 8 miles respectively. Abercorn is also connected by telephone to Kasama, a distance of 108 miles ; and via Kituta to Kalombo on the Tanganyika border, a distance of 21 miles. The Abercorn-Kituta line now extends 7 miles to Mpulungu (Msende Bay) on Lake Tanganyika and also connects with the Tanganyika Territory system.

A telephone service exists at Livingstone and gives continuous day and night service. The larger switch-board installed during 1927 is fully loaded and additional accommodation to meet the demand for connections has been provided. Arrangements have been made for the introduction of automatic telephones to replace the present system at an early date. There is a trunk line from Livingstone to the Victoria Falls Hotel on the Southern Rhodesia side of the Zambezi. There is also a telephone system at Broken Hill, installed by the Rhodesia Broken Hill Development Company, but it has no private subscribers.

Postal work shows a considerable increase and once more reflects the progress that the country has made. During the year, stamps and embossed stationery were sold to the value of £21,980, as compared with £18,200 in the preceding year. Money orders were issued to the value of £62,393, and £28,444 was paid out in respect of money orders issued elsewhere. The corresponding figures for the preceding year were £46,687 and £27,694. Postal orders issued numbered 49,904, worth £27,224, while £10,863 was paid out in respect of 19,733 postal orders. The cash-on-delivery system was used by an increased number of persons, and 5,645 packets, valued at £17,009, were dealt with under it. 17,095 articles were undelivered and passed through the Returned Letter Office. The following table shows the quantities of the various kinds of mail matter received and despatched during the year as compared with the figures for the preceding two years :—

Received.

	1929	*1928	1927
Letters	2,235,272	2,193,594	1,796,704
Postcards	35,620	50,636	34,540
Newspapers	688,792	667,866	605,592
Bookpackets	514,254	483,496	325,728
Parcels	66,560	49,010	41,080
Registered articles	67,964	60,112	50,284

* 1928 figures unreliable.

Despatched.

Letters	2,383,264	2,564,824	2,167,464
Postcards	40,716	79,354	51,376
Newspapers	160,420	134,446	108,516
Bookpackets	272,558	241,124	174,720
Parcels	15,132	12,246	8,216
Registered articles	68,302	75,458	53,924

D.—Aircraft.

There is as yet no established system of air communication in the territory. There are, however, aerodromes, originally prepared by the Imperial Government and maintained primarily for the use of Air Force Squadrons. An annual flight is made between Khartoum and Cape Town.

Refuelling masts have been installed on the aerodromes at Livingstone, Broken Hill, and Ndola by the Shell Company of Rhodesia.

None of these aerodromes have any ground staff and they are at present in reality no more than landing-grounds.

There is a marked increase in air traffic, a considerable number of private machines having landed at various grounds during the year. New landing grounds are in course of preparation at Fort Jameson and Mpika, the latter in connection with the Imperial Airways project of a trans-African service, and a landing ground for use of small machines only has recently been cleared at Mazabuka.

VI.—JUSTICE, POLICE, AND PRISONS.

Justice is administered by the High Court of Northern Rhodesia, and by the Magistrates' and Native Commissioners' Courts subject to appeal to and review by the High Court. During the year the High Court dealt with 122 civil matters as against 96 in the preceding year, and heard 9 actions and 2 appeals. Eight petitions in bankruptcy were presented. Sessions were held at Mazabuka, Lusaka, Broken Hill, and Ndola in May and November, and at Mongu in July.

Forty-one criminal cases came before the Court exclusive of reviews of judgments in the lower Courts: these latter numbered 352, of which 212 were confirmed, 38 quashed, 71 altered, 3 sent back and subsequently approved: in the remaining 28 cases the accused were bound over.

The Civil Police and Criminal Investigation Department were involved in 4,889 prosecutions during the year, a decrease of 525 cases as compared with 1928. In addition there are many cases tried at stations where there are no police.

This decrease is attributed to a better observance of Village Management Regulations by both Europeans and natives.

The following figures show the convictions for the more serious crimes as compared with the figures for 1928:—

	1929	1928
Murder	29	18
Manslaughter	6	9
Arson	10	20
Forgery and Uttering	14	2
Housebreaking and Burglary ...	46	49

	1929	1928
Rape	20	16
Incest	1	1
Assault	337	394
Indecent Assault	15	19

94.0 per cent. of persons prosecuted were convicted.

Central Prisons are established at Livingstone, Broken Hill, Fort Jameson, Kasama, and Mongu and 1,303 persons were committed to the central prisons of the territory during the year. The daily average of prisoners was 351. Three natives were executed during the year. There were 7 deaths from natural causes amongst native prisoners as compared with 9 for the year 1928. The average sick was 16.85 as compared with 13.77 for the year 1928.

VII.—PUBLIC WORKS.

Concurrent with a normal extension of maintenance work during the year, the internal organization continued to receive attention, and a complete new system of accounting was prepared and will come into operation with the commencement of the next financial year. The services of an Architect and Quantity Surveyor were obtained in preparation for the building programme foreshadowed in the last report. Work upon this programme commenced in August and by the end of the year was in operation at the following stations :—

Balovale.—Offices and a Court House were under construction, funds being supplied from Development Loan, whilst simultaneously the Medical Officer's house, dispensary and operating theatre, mortuary, native kitchen, huts, etc., were being constructed with funds supplied from the Barotse Trust Fund.

Bwana Mkubwa.—Quarters to house police staff, together with offices, cells, lines, kitchen, etc., were commenced.

Choma.—Court house, Veterinary Office and Post Office were under construction from Building Loan funds concurrently with extensive additions to the school under Beit Trust Funds.

Chisamba.—A Police house, office, Court and rest house, cells and postal huts were commenced.

Lusaka.—Three bungalows and combined Government offices were started.

Mazabuka.—The original programme under the Research Loan was completed at a cost of approximately £21,000 and five new bungalows were started under Building Loan, together with water boring operations to prove the possibility of erecting more houses.

Mankoya.—District Commissioner's house and Court house were commenced.

Mokambo.—Cator huts and offices to house the Police and Customs officers were let to contract.

Ndola-Sakania Road.—A Preventive Post was completed under contract.

Ndola.—A Customs warehouse, Customs offices, six permanent and one temporary bungalow, Post Office and Government offices were commenced.

Under the Road Loan an increased staff was engaged and the re-construction of the Victoria Falls section of the Great North Road was undertaken, together with an extended programme of work on the Great East Road and sections of the Great North Road between Broken Hill and Abercorn. Some work was also done on the Congo Border Road between Kapiri Mposhi and Kasempa, and sections of the Mumbwa-Kasempa Loop Road also received attention.

VIII.—PUBLIC HEALTH.

The Government maintains European hospitals at Livingstone, Lusaka, Broken Hill, Fort Jameson, Kasama, and Mongu, together with native hospitals at these stations and also at Abercorn, Choma, Mazabuka, Solwezi, Ndola, and Fort Rosebery.

In addition to the above, many mission doctors, hospitals and dispensaries receive annual subsidies from the Government for medical work in native areas.

A new medical station at Balovale was opened during the latter part of the year, and a native hospital is in the course of construction.

During the year 1,052 Europeans and 8,540 natives were admitted to Government hospitals and there were 24 European and 446 native deaths respectively in these hospitals.

Out-patients—926 European and 13,727 native patients were treated as out-patients at Government hospitals.

(*a*) *Sleeping Sickness.*—Two European and five native cases infected with sleeping sickness came under treatment; a sixth native, said to have been suffering from sleeping sickness, died on his way to hospital.

Dr. Gilkes visited 13 villages in the neighbourhood of the Serenje-Fort Jameson Road and found one case of sleeping sickness and one suspected case.

Dr. Acheson made an extensive tour in the Luangwa Valley sleeping sickness area. Seventy villages were visited and 7,556 people were examined. Seven cases of sleeping sickness were discovered, giving a percentage of .092 of the people examined.

(*b*) *Smallpox.*—The smallpox epidemic reported last year was on the wane towards the end of 1929 and, with the exception of the Kasama and Fort Jameson districts and the Barotse Province, was well under control.

(*c*) *Chest Complaints.*—Influenza and influenzal pneumonia are still the chief factors in the native death rate.

(*d*) *Leprosy.*—The Native Department statistics for the year show 5,516 lepers in the territory, an increase of 246 over last year. Statistics are, however, not easy to obtain, and many of the additional cases reported are probably old ones that have not been previously discovered.

Eight missionary societies co-operate with Government in a system of voluntary segregation, and the useful work now being carried out will undoubtedly expand as time goes on.

(*e*) *Ankylostomiasis.*—Greater incidence of this disease is found at Livingstone than elsewhere in the territory among natives living in the Zambezi Valley and Barotseland.

(*f*) *Yaws.*—Results of the treatment of yaws with Bismuth and Sodium Tartrate continue to be satisfactory. This disease is chiefly prevalent, as formerly, in the Kasempa, Kafue, and Luapula areas, and also in the Ndola District. Where treatment is available natives apply for it; many sufferers come from the Zambezi Valley for treatment at Choma.

(*g*) *Malaria and Blackwater.*—The following table gives the number of persons admitted to Government hospitals suffering from malaria and blackwater for the last five years :—

	European Population.	*Malaria Cases.*	*Deaths.*	*Blackwater fever cases.*	*Deaths.*
1925 ...	4,624	211	6	13	7
1926 ...	5,581	262	1	21	7
1927 ...	7,275	272	6	20	5
1928 ...	7,536	304	2	17	5
1929 ...	9,981	330	1	5	1

The European population shows an increase of 2,445 over the previous year while the death rate is 9.32, as compared with 12.87 in 1928.

The malarial and blackwater fever incidence and the death rate is lower than in 1928 and the state of the general health of the European population must be considered satisfactory.

Vital Statistics.	1926	1927	1928	1929
Number of deaths	62	72	97	93
Death rate per 1,000	11·1	9·89	12·87	9·32
Deaths of infants under 1 year of age...	7	18	15	21
Death rate per 1,000 of births in year...	49·3	125	76·92	99·52

Births :—

111 males.
100 females

211 total

Crude birthrate 21.14 per 1,000, as compared with 25.8 per 1,000 last year.

The native population is 1,298,651, which is an increase of 36,679 or 2.91 per cent. over the previous year.

The birth-rate in a number of observed villages was 63.9 per thousand and the infantile mortality percentage of deaths to births was 38 per cent., a much lower figure than has been previously estimated.

The Health and Mortality Returns rendered by the mines compare very favourably with last year :—

	Death-rate per 1,000 employees.	
	1928.	1929.
Broken Hill Mine	15.50	9.51
Bwana M'Kubwa Mine ...	20.50	17.59
N'Changa Mine	15.60	8.15
Roan Antelope Mine ...	38.00	17.74
Nkana Mine	—	10.74

The health record for the year during a period of active development of the territory which has attracted a big influx of population to townships still in the course of construction compares very favourably with previous years.

IX.—EDUCATION.

European Education.

There are five schools providing secondary education up to Standard VII at Livingstone, Choma, Mazabuka, Lusaka, and Broken Hill. Boarding establishments are attached to the schools at Choma and Mazabuka, with accommodation for 25 girls and 20 boys respectively.

Eight schools providing primary education up to Standard V exist at Silver Rest, Chilongolo, Lubombo, Fort Jameson, Bwana Mkubwa, Ndola, Luanshya, and Nkana.

Thirty-five teachers were employed in the schools.

The total enrolment at the close of the school year 1929 was 564 (324 boys and 240 girls), an increase of 46 over the figure for 1928 and 84 over that of 1927.

A European Education Commission under the Chairmanship of the Chief Secretary, Mr. G. A. S. Northcote, was appointed early in 1929 to enquire into and report upon

(1) the advisability of forming a Central Board of Education and the constitution and functions of such a Board ;

(2) the advisability of forming Local Boards and School Committees and the constitution and functions of such Boards and Committees ;

(3) the necessity for an Education Ordinance ;

(4) methods by which Education facilities may be more widely extended ;

(5) the control of private schools ;

(6) generally such other matters as are relevant to the above heads.

The more important of their recommendations were as follows :—

(1) The creation of a Central Advisory Board.

(2) The creation of Local (Area) Advisory Boards.

(3) The framing of an Education Ordinance.

(4) Aided, including farm, schools should offer instruction up to Standard II only.

(5) The Government primary schools should offer the full secondary course up to Standard VII and should be developed on the day boarding school basis. The term education should be interpreted in its widest sense and facilities, such as playing fields, should be provided and equipped.

(6) Hostel accommodation should be provided at Lusaka School for rural children who have passed Standard II.

(7) Further facilities for secondary education should be gradually developed at the high (boarding) schools for boys and for girls.

(8) A system of apprenticeship to various trades and technical pursuits and of night schools at various centres should be devised.

(9) Compulsory education, with the payment of fees according to capacity, should be introduced within certain areas at the earliest possible date.

(10) Private schools should be fully controlled on the lines of the Orange Free State Ordinance.

(11) Child health should be closely studied.

(12) The Guide and Scout Associations should be supported.

(13) Supervision of children travelling by train to and from school should be provided.

Steps will be taken during 1930 to carry out as far as possible the Commission's recommendations.

Native Education.

The education of natives in Northern Rhodesia is at present carried on almost entirely by the Missionary Societies, the Government making some grants in aid and exercising such supervision as is possible through the Director of Native Education and one Inspector. Two more Inspectors are at present taking a post graduate course and will join the Department in July, 1930. The most pressing requirement continues to be the training of native teachers and instructors without whom any satisfactory attempt at the education of the native population is impossible. This fact is realized by the Missionary Societies who, encouraged by the grants being made, are bringing out more trained European educationists as members of their staffs.

There are now 9 Normal Schools for the training of native teachers, with a total enrolment of 285. Most of these schools have been started within the last three years and their out-put has not yet had an appreciable effect on village schools most of which are still very weak educationally.

In the second Departmental Examination for Teachers' Certificates held in 1929 there were 118 candidates, of whom 85 obtained provisional certificates.

The Jeanes and Agricultural Schools at Mazabuka for which the Trustees of the Beit Railway Trust generously granted £12,000 for capital expenditure and £1,000 a year for 5 years for maintenance will be opened in February, 1930.

The Carnegie Corporation is also making an annual grant of £750 for the Jeanes School and £250 to the Mbereshi Station of the London Missionary Society for the training of women teachers on Jeanes lines. This will be a further development of the Girls Boarding School following on the baby welfare clinic and maternity training already provided for.

The six native health agents trained by Dr. Chisholm are reported to be functioning satisfactorily in the Isoka Sub-District.

The Advisory Board met at Livingstone in October. Amongst other business it considered syllabi for Elementary, Middle, and Normal Schools based on those of Uganda. These, with the amendments recommended by the Board have since been circulated and have been welcomed by Missionary Societies.

There are in the territory approximately 260,000 children of school age, the numbers of boys and girls being about equal. School returns show that a total of 24,247 people of all ages are on the rolls of recognized schools in the territory and that there are a further 105,310 on the rolls of unrecognized sub-schools—making a total of 129,557, who have received some sort of instruction in the course of the year. It is estimated that 110,000 of these are children of school age. In the sub-schools only religion and the elements of reading, writing, and counting are taught.

The Barotse National School was again handicapped early in the year by food shortage but had on the whole a successful year.

Some reorganization is taking place as from April, 1930, most of the out-schools controlled by the school being handed over to the Paris Mission with a view to greater concentration of the European Staff on the Central School. Crops on the small school farm were successful and the condition of the cattle improved considerably.

A school scheme for the territory prepared at the end of last year and discussed by the Director with a sub-committee of the Advisory Committee to the Colonial Office will be submitted when the report on the technical education of natives now being prepared by Mr. G. E. Hunt has been received. If the scheme is approved and the necessary funds for both capital and recurrent expenditure are made available an effective start will be made in 1931.

The following figures of expenditure from Government funds are indicative of the increasing interest and progress in provision of education for the native population :—

	£
1924–25	348
1925–26	3,994
1926–27	6,603
1927–28	6,593
1928–29	8,493
1929–30 (Estimated)	11,095
1930–31 ,, ...	13,030

These figures do not include contributions from the Beit Railway Trustees, the Carnegie Corporation, and the Barotse Fund.

The total amount to be expended on native education in 1930–31 exclusive of capital expenditure is estimated at approximately £22,000.

X.—LANDS AND SURVEYS.

During the year 1929, one hundred and thirty-nine enquiries regarding land settlement were received, of which 38 were from residents in the territory ; 58 from the Union of South Africa ; 26 from Southern Rhodesia ; 8 from Kenya Colony ; 2 from the United States of America ; 1 from the United Kingdom ; 1 from India ; 2 from New Zealand ; 2 from Belgian Congo and 1 from Uganda. In addition 93 enquiries were dealt with for surveyed plots at townships and sidings. 7,410 acres were alienated under permit of occupation as new holdings, the total purchase price being £2,558. Twenty titles to farms were issued in respect of 32,283 acres, and fifty-one titles were issued in respect of township plots. Thirty-two other leases were issued for other areas of farm land, including mining companies grants, amounting to 24,435 acres. The amount received in respect of timber royalty for the year was £3,450 17s. 10d.

During the year a number of farms were surveyed in various parts of the territory. In addition a large number of plots were surveyed at other places including the demarcation of the new township at Luanshya and an extension of Ndola township. Several more farms were surveyed within the British South Africa Company's Areas in the vicinity of Abercorn.

District Surveyors are now established at Lusaka, Ndola, Kasama, and Fort Jameson, an arrangement which facilitates the settlement of survey matters in these districts and relieves to a great extent the congestion at headquarters.

The aerial photography of the Zambezi and its tributaries, the Kabompo and Lungwebungu, has been completed, and the mosaics delivered. The mapping from oblique photos of portions of the Rhodesian Congo Border Concession was successfully completed and the finished maps to scale 1 : 250,000 have been received.

Contracts have been arranged for the aerial survey of 63,000 square miles of the territory including a strip 30 miles wide along the railway between Livingstone and Broken Hill, and also for the vertical photography of areas surrounding six more townships in the territory for town planning purposes.

Under the Townships Ordinance sixty-three plans and descriptions of township boundaries which are to be proclaimed have been prepared for gazetting.

The International Boundary Commission is still at work on the demarcation of the Anglo-Belgian Boundary along the Zambezi-Congo Watershed.

XI.—LABOUR.

A.—Within the Territory.

There is little change in the native labour situation, although there is now a wider choice of employment open to natives who desire to work. Wages have increased, more opportunities are available for men of some education, and conditions of employment are improving generally. Some mines have complained of shortage of labour, but it cannot be said that the supply of surface workers has fallen below requirements. Real difficulty has, however, been experienced in recruiting labour for underground work, and recently a number of alien natives were imported for this purpose.

The number of Europeans licensed to recruit for employment within the territory has increased from 18 to 28 during the year. Competitive recruiting by Labour Agents has been found uneconomic and wasteful and has created in the minds of natives a false impression that the demand for their labour is greater than the supply. It has now been arranged to form one Labour Association to control recruiting for all the mines and a good deal of unnecessary expenditure will be avoided; while improvement in transport facilities, medical supervision, and detention camps should result.

The numbers of natives employed on mines in Northern Rhodesia at the close of the last three years were :—

1927 ...	... 10,946
1928 ...	... 16,073
1929 ...	... 22,341

These figures include all labour, recruited and voluntary; and also labour employed by contractors.

There is a class of agricultural natives who prefer working on farms to any other form of employment and it is believed by men who are in a position to know that this class of natives will only with difficulty be enticed to mining and industrial employment. So long, therefore, as the farming community is confined to the numbers in the territory at present there may be sufficient labour for their needs, but should there be any great agricultural development farmers may find it more difficult to obtain all the native labour they require. In agriculture there was a decrease in the number of months' work performed of 4,445 mainly due to the continued depression in the tobacco industry in the East Luangwa Province.

Statistics show that the average numbers of natives employed in the building trade, in manufactures, on railways, and in domestic and other minor works have very considerably increased as the result of the development in Ndola District and railway construction.

B.—Without the Territory.

The labour recruited for employment outside the Territory is engaged either by Mr. R. W. Yule for work in the Belgian Congo, or by the Rhodesia Native Labour Bureau for work in Southern Rhodesia.

The numbers of natives engaged by these organizations during the year are :—

Rhodesia Native Labour Bureau ...	4,599
R. W. Yule	4,110
	8,709

The numbers recruited during the year 1928 were 9,198, and for the year 1927 were 10,871. Deferred pay was distributed by these agencies to the amount of £36,707 0s. 3d., as compared with £52,474 9s. 5d. in the previous year.

It is estimated that 33,750 natives left the territory independently in quest of employment. The estimate for 1928 was 27,650. Of the total, 23,126 natives worked in Southern Rhodesia. The preference for employment beyond the limits of the territory is not solely due to better wages or better conditions of employment. Numbers of natives have acquired a habit of going to particular places which they know and like, and these labourers have now no wish to proceed to new labour markets where conditions may be entirely different. Of the natives who went independently to Southern Rhodesia to work, 14,442 were from the East Luangwa Province, while from the Tanganyika Province 2,546 natives went to work for the planters on the Central Railway in Tanganyika Territory.

XII.—MISCELLANEOUS.

During the year under review two Sessions of the Legislative Council were held, namely the Sixth Session of the Second Council from 28th February to 26th March and the First Session of the Third Council from 8th November to 21st November.

The later Session was notable for an increase in the number of elected members from five to seven, provided for in the Northern Rhodesia (Legislative Council) Amendment Order in Council, 1929. The Ordinances passed at these two sessions amounted to sixty in number, easily constituting a record for the amount of legislation enacted in any one year for the territory. The following important Ordinances were passed and will come into force in 1930 : a Native Authority Ordinance, Native Courts Ordinance, Natives on Private Estates Ordinance, Native Registration Ordinance, and a consolidated Employment of Natives Ordinance ; another group of legislation contained a consolidated Post Office Ordinance, a Radiotelegraph Ordinance, and a Telegraphs Ordinance, and a third group of legislation consisted of a new Townships Ordinance, a Town Planning Ordinance, and a Public Lands Acquisition Ordinance ; railway legislation comprised the Mufulira-Mokambo Railway Ordinance, the Nchanga Extension Railway Ordinance, and the Rhodesia Katanga Junction Railway and Mineral Company, Limited (Amendment) Ordinance.

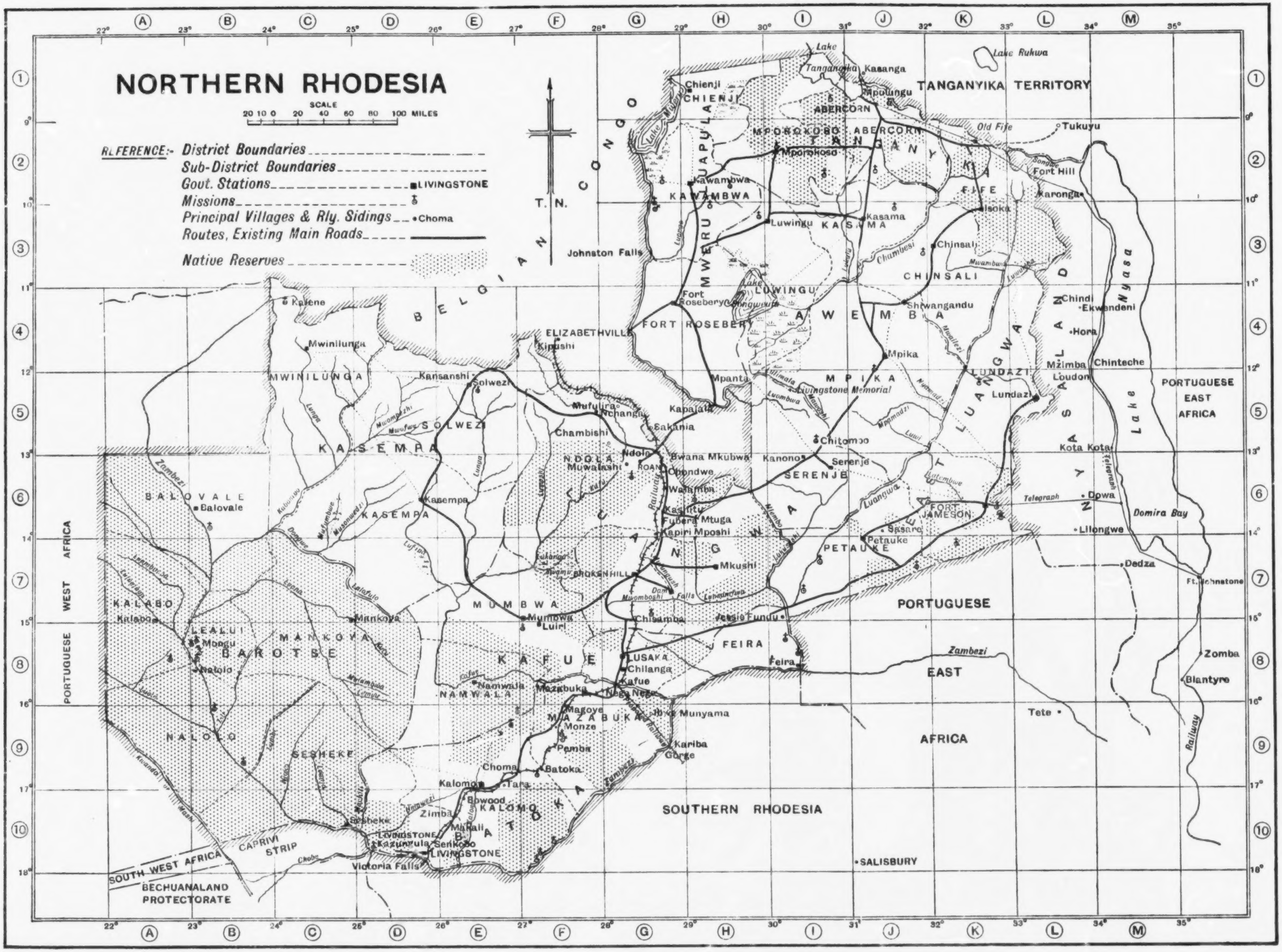
A Widows' and Orphans' Pensions Ordinance, uniform with the law in both East and West African Colonies was passed and certain amendments to the European Officers Pensions Ordinance were also made.

The subject matter of other Ordinances dealt with Arms and Ammunition, Explosives, Fish Protection, Legal Practitioners, Vagrancy, and other minor matters and a consolidated Interpretation Ordinance was also passed. A slight alteration was made in the form of the publication of legislation, this being published throughout the year by means of supplements to the official Gazettes. Subsidiary legislation was contained in 105 Government Notices and extended to 344 pages of supplements.

Native Reserves were established by Imperial Order in Council in the Tanganyika Province and also in the settled areas bordering on the railway line. For administrative purposes the territory was by Proclamation divided into Provinces, the former sub-districts becoming Administrative Districts.

During the year, two High Court Circuits took place on the railway line and one at Mongu in the Barotse Province. This was the first occasion on which the High Court has sat in the Barotse Province and is notable by reason of the fact that His Honour Sir Ewen Logan flew by aeroplane to Mongu in about three hours, whereas the journey would otherwise have taken three weeks.

D. MACKENZIE KENNEDY,
Chief Secretary.



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NORTHERN RHODESIA.

ANNUAL REPORT, 1930.

PREFACE.

The territory known as the Protectorate of Northern Rhodesia lies between longitudes 22° E. and 33° 33′ E. and between latitudes 8° 15′ S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South-West Africa; comprising in all an area that is computed to be about 288,400 square miles. The River Zambezi forms the greater part of the southern boundary; its two main northern tributaries are the Rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown territory. The curtain of obscurity lifts for a moment when we read the diaries of the Portuguese Governor of Sena, Dr. Lacerda, who led an expedition in 1798 from Tete into Kasembe's country, close to the eastern shores of Lake Mweru. He was followed in the early 19th century by two Portuguese traders, Baptista and José, who brought back stories of the great interior kingdom of the Balunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the 16th to the 19th century. Very few historical facts are known about it, but the name of Muati Yamvo, the dynastic title of the Paramount Chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any very great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and in 1855 discovered the Victoria Falls, that the civilized world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls were Serpa Pinto, Cameron, Selous, and Arnot.

From the very early days when the hordes of migratory Bantu swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasions from stronger tribes on its borders, so much so, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambezi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time statistics are available of seventy different tribes resident in the territory, of which the most important are the Awemba (110,659), Achewa (75,108), Angoni (50,632), Awisa (41,706) in the Eastern Districts; the Barotse (55,123), Batonga (95,445), Balenje (39,580), Balovale (58,853), Bakaonde (33,642), Baila (21,632) in the Western Districts; and the Asenga (64,546) and Alunda (66,445) members of which are resident in both Eastern and Western Districts. There are said to be 50 distinct native dialects in use, of which Chiwemba and Chinyanja have been adopted for educational purposes in the Eastern Districts and Chitonga (closely allied to Chila) and Sikololo in the Western. In addition to these, Chinyanja is in use as the official language of the police, and is probably the language most generally spoken by Europeans; it is, in reality, a Nyasaland language—the word means "Language of the Lake"—but it is also spoken to some extent round Fort Jameson.

The chief invaders of the early part of the 19th century were the Arabs from the north; the Angoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the territory; and the Makalolo, an offshoot of the Basuto family, who in the beginning of the 19th century, fought their way from the south through Bechuanaland and across the Zambezi under the noted Chief Sebitoani; they conquered the Batoka, the Basubia, and the Barotse and founded a kingdom which was distinguished by a comparatively high degree of social organization.

The duration of the Makalolo kingdom was short. Soon after the death of Sebitoani, the Barotse rebelled and massacred the Makalolo to a man. The influence of their occupation is still to be seen in the Sikololo language, which is largely spoken amongst the tribes near the Zambezi. The Barotse under Lewanika enlarged their kingdom by conquering one or two of the surrounding tribes, such as the Bankoya and the Balovale. Beyond these limits their authority was both nebulous and ephemeral. In the year 1890 Lewanika asked for British protection and on the 27th June the Barotse Concession was signed, by which Lewanika recognized the Protectorate of Queen Victoria and gave the Chartered Company certain mining and commercial rights over the whole of his dominion. Lewanika, on his side, received a yearly subsidy of £2,000.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lake Nyasa and Tanganyika over the whole territory ; but with the establishment of a Government post at Abercorn in 1893, the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave raiders were occasionally encountered on the north-east boundary, and skirmishes with them took place as late as 1900 ; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavery. This social serfdom was brought to an end by an edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Previous to 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland—North-Western Rhodesia Order in Council placed the administration of the western portion of the country by the Company on a firm basis ; and this was closely followed by the North-Eastern Rhodesia Order in Council of 1900 with similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924, when, in terms of a settlement arrived at between the Crown and the Company, the administration of the territory was assumed by the Crown, and the first Governor was appointed on 1st April, 1924.

The currency in use consists partly of English coinage and partly of notes of the Southern Rhodesia issue of the Standard Bank of South Africa and Barclays Bank (Dominion, Colonial, and Overseas) both of which have branches and agencies in this country. The coins and notes of the Union of South Africa are also normally current at par.

English weights and measures are employed.

There are considerable climatic differences between various parts of the country. The Zambezi, the Luangwa, and the Kafue Valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November before the rains break, when the mean maximum is 97° in the Zambezi valley stations and 85° at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90.3° with a mean minimum of 64.5° while the corresponding figures for the four months of the cold season (May to August) are 78.7° and 46.6°.

The following table gives representative temperatures for the territory experienced during 1930 :

Place.	*Highest mean Max.° F.*	*Month.*	*Lowest mean Min ° F.*	*Month.*	*Absolute Max.° F.*	*Month.*	*Absolute Min.° F.*	*Month.*
Livingstone, 3,000 ft. ...	98·5	Oct.	44·1	June	108·6	Oct.	36·8	Aug.
Broken Hill, 3,753 ft. ...	88·8	Oct.	44·0	June	97	Nov.	42	June
Abercorn 5,110 ft. ...	83·0	Oct.	50·5	July	90	Nov.	45	June

Highest Temperature ... 112° Barotse National School in October.

Lowest ,, ... 21° Sesheke in July.

The rainy season usually commences in November and lasts until April, after which month rain is rarely experienced and then in negligible quantities.

In the early part of the year the rainfall throughout the southern portion of the territory was below normal though along the Congo Border and in the North-Eastern Districts it was slightly above normal. February was exceptionally dry throughout the territory, but there were very heavy rains in the first two weeks of April. Owing probably to these late rains, the winter was unusually cold and long, the temperature in August being exceptionally low. High temperatures were reached by the middle of September which were followed by a phenomenal drop on or about the 14th, the daily range averaging 50°F. This cold spell appears to have been very widespread extending over the whole of Southern Africa. The rains were generally late in starting and the temperatures unusually high up to December, which proved the wettest month in the year.

I.- GENERAL.

In the New Year's Honours List His Excellency, Sir James Crawford Maxwell, K.B.E., M.D., was created K.C.M.G. On his departure on leave in April, Mr. C. H. Dobree, C.B.E., became Acting Governor, and in July, Mr. H. C. D. C. Mackenzie Kennedy was promoted Chief Secretary on the appointment of his predecessor, Mr. Northcote, to the Colonial Secretaryship of the Gold Coast.

In September, a delegation of the Empire Parliamentary Association visited the territory. The party consisted of Messrs. Pybus, Boyce, and Parkinson, representative of the three Parliamentary Parties, and in the course of their tour up the line of rail they were able to meet members of almost every section of the European community.

These were followed closely by the Economic Mission under the chairmanship of Lord Kirkley, which had completed a tour of the Union of South Africa and Southern Rhodesia.

Both parties were able to show those whom they met that the interests, both political and economic, of the Europeans in Northern Rhodesia, were not being disregarded.

Throughout the year the archaeological expedition led by Professor Cipriani, which was mentioned in the Report for 1929, carried on extensive exploration of caves in various parts of the territory. In the Mumbwa district ancient iron workings were discovered, and near Solwezi rock carvings of considerable interest. The report of the expedition has not yet been published, but apart from the archaeological value of the discoveries themselves there is no doubt that a much needed impetus has been given to anthropological and scientific research generally in Central Africa. Indeed, the year was a notable one in this respect for beside this expedition many members of the British Association visited the territory at the conclusion of the meeting which was held at Cape Town, and a Metallurgical Congress at Broken Hill was attended by them, other scientists, and many representatives of the mining interests in Africa.

The year was one of political and economic progress for the natives of the territory. The Native Authority and Native Courts Ordinances came into force at 1st April, and already there are indications that the policy promises to be a success. The Chiefs have a better understanding of their judicial than of their administrative functions, and the work of the Native Courts has been generally satisfactory. Mistakes have of course been made, but no injustice incapable of ready adjustment seems to have been done to anyone. The prestige of the Chiefs has been greatly enhanced at a time when this was particularly desirable, and the people as a whole have welcomed the change in the system of native administration.

The amount of money in circulation in the territory was greater than in any previous year ; both in the settled areas and in more remote districts natives were able to obtain good prices for their labour and their produce.

Native immigration from neighbouring territories continues, and it was noticed in a number of districts that natives who had been away at work in other countries for many years were returning to their homes, accompanied by their families.

Movement into Reserves continues and will be accelerated as soon as it is possible to improve water-supplies in comparatively arid areas. A large scheme of water-development is to be undertaken during 1931 and succeeding years.

The native population at the end of the year was estimated to be 1,331,231, and showed an increase of 2·5 per cent. over the 1929 figure.

Immigrants into Northern Rhodesia in 1930, exclusive of natives, numbered 3,651, of whom 3,309 were British subjects. The following comparative figures of immigration, exclusive of visitors, are indicative of the increasing progress being made by the territory :—

1923	1924	1925	1926	1927	1928	1929	1930
260	438	474	756	1,038	1,066	1,861	3,309

The majority of these immigrants were absorbed by the mining areas.

Fifty persons were deported, ten being criminals and the remainder either indigent or illiterate. No figures of emigration are available.

Accurate statistics of native immigration are not available, but at least 4,000 appear to have entered the country during 1930 for purposes of domicile, apart from the large number who came to seek employment on the mines. The majority of these immigrants came from Mozambique and Angola.

II.—FINANCE.

In the face of world-wide trade depression it is satisfactory to be able to record that the financial year 1930–31 showed a surplus of revenue over expenditure of £50,268, after charging to expenditure a refund of £75,000 to the Imperial Exchequer on account of the grants-in-aid made in the years 1924–25 and 1925–26. The expansion in revenue was well maintained and reflects a constant development of the resources of the territory. The townships in the copper mining area continued to grow and at the close of the year the Ndola district contained over 6,000 Europeans. Four or five years ago the number of Europeans in that district was almost negligible. Following the expansion of revenue, normal expenditure also increased but has been kept in check by the exercise of economy. Expenditure of a capital nature on development was considerably heavier than in the previous year.

The revenue for the year amounted to £830,254, an increase of £157,965 or 23·49 per cent. over the previous year. Revenue from Customs produced £344,314 an increase of £92,984 or 37 per cent. Licences, Taxes, and Internal Revenue produced £303,356, being £44,162 or 17·04 per cent. in excess of the corresponding figure for 1929–30. The main increases were £25,049 in Income Tax and £19,521 in Native Tax. The Revenue from Fees of Court or Office amounted to £66,549 as compared with £54,655 in the previous year, the excess being due to larger receipts from Mining Revenue. The revenue from the Post Office was £55,427 which compares favourably with £49,472 for the previous year, particularly in view of reductions as from the 1st August, 1930, in the postal rates which were brought into line with the rates then ruling in the South African Postal Union ; viz., one penny per ounce for letters and one halfpenny for postcards. Rent of Government property realized £13,879 as compared with £11,642 for the previous year. Interest amounted to £5,401 as compared with £2,700 in 1929–30. Miscellaneous Receipts produced £7,004, a reduction of £3,084 mainly accounted for by reduced credits from Timber Royalties. Most of the timber cut in 1930–31 came from a native reserve with the consequent credit to the Native Reserves Fund of the royalties. The sum of £13,310 was received from the Colonial Development Fund and is offset by expenditure exceeding that amount. There was less demand than in the previous year for township stands with the result that Land Sales fell from £33,208 to £21,014 in the year under review.

STATEMENT SHOWING THE ACTUAL REVENUE FOR THE YEAR ENDED 31ST MARCH, 1931.

	Head of Revenue.	£
I.	Customs	344,314
II.	Licences, Taxes and Internal Revenue ...	303,356
III.	Fees of Court or Office, etc.	66,549
IV.	Post Office	55,427
V.	Rent of Government Property	13,879
VI.	Interest	5,401
VII.	Miscellaneous	7,004
	Colonial Development Fund	13,310
	Total	£809,240
VIII.	Land Sales	21,014
	Grand Total	£830,254

The ordinary and extraordinary expenditure for the year amounted to £704,986 which, compared with the sanctioned estimate of £662,533, showed a net excess of £42,453 over that estimate. Supplementary estimates for a further net expenditure of £23,841 were approved by the Legislature in December, 1930, while expenditure under the head of Colonial Development Fund amounted to £23,119. As in the previous year economy has been exercised, but it has not been possible, owing to various circumstances, to carry out all the services for which funds were provided in the Estimates. On the other hand a number of additional services became necessary after the Estimates were approved, notably under Public Works Recurrent, Miscellaneous Services, and Public Works Extraordinary. Personal Emoluments showed savings amounting to £7,553 mainly attributable to delays in filling new posts or vacancies. On the other hand Other Charges showed excesses amounting to £8,303 and Extraordinary Expenditure excesses amounting to

£18,584, while the Colonial Development Fund Expenditure of £23,119 had not been estimated for. The sum of £75,000 was refunded to the Imperial Exchequer.

STATEMENT SHOWING THE ACTUAL EXPENDITURE FOR THE YEAR ENDED 31ST MARCH, 1931:—

	Head of Expenditure.	
	Ordinary.	£
I.	The Governor	6,936
II.	Secretariat	9,566
III.	European Education	27,001
IV.	Printing and Stationery	8,690
V.	Native Affairs	17,830
VI.	District Administration	125,561
VII.	Treasury and Income Tax	12,917
VIII.	Customs	9,760
IX.	Posts and Telegraphs	49,575
X.	Lands	2,255
XI.	Survey	14,472
XII.	Audit	3,642
XIII.	Judicial	7,846
XIV.	Legal	5,034
XV.	Northern Rhodesia Police	76,031
XVI.	Prisons	12,693
XVII.	Health	59,634
XVIII.	Animal Health	22,334
XIX.	Agriculture	18,797
XX.	Mines	3,635
XXI.	Public Works Department	8,389
XXII.	Public Works Recurrent	39,336
XXIII.	Percentage of Tax and Licences	10,514
XXIV.	Miscellaneous Services	55,869
XXV.	Pensions and Gratuities	30,903
XXVI.	Interest and Charges on Loans	5,744
	Colonial Development Fund	23,119
	Total	£668,083
	Extraordinary.	
XXVII.	Public Works	27,928
XXVIII.	Other Departments	8,975
	Total	£704,986
	Refund to Imperial Exchequer	75,000
	Grand Total	£779,986

The surplus for the year thus amounted to £50,268.

The following statement gives the financial position of the territory as at the 31st March, 1931 :—

	£
Excess of Assets over Liabilities at 1st April, 1930 ...	214,980
Excess of Revenue over Expenditure, 1930–1931 ...	50,268
Excess of Assets over Liabilities at 31st March, 1931	£265,248

The following is a statement of Assets and Liabilities at the 31st March, 1931 :—

Liabilities.

	£	s.	d.
Deposits—			
Post Office Savings Bank	11,853	16	10
Administrator-General and Registrar of the High Court	14,222	2	4
Other Deposits	39,513	7	7
Native Reserves Fund	6,693	9	7
Beit Railway Trust Grant—Choma School ...	152	1	0
Overdraft—Joint Colonial Fund	430,000	0	0
Excess of Assets over Liabilities	265,248	3	10
	£767,683	1	2

Assets.

	£	s.	d.
Cash	126,896	15	9
Investments	13,349	11	7
Administrator-General and Registrar of the High Court	14,222	2	4
Advances pending receipt of Loan Funds ...	566,800	16	3
Expenditure incidental to the investigation of Sites for a new Capital	2,121	16	8
Advances pending receipt of Beit Railway Trust Grants	2,655	5	8
Advances	18,694	17	1
Unallocated Stores	22,941	15	10
	£767,683	1	2

The Revenue and Expenditure for the last five years were :—

	Revenue.	Expenditure.		
		Recurrent.	*Extraordinary.*	*Total.*
	£	£	£	£
1926–27	421,035	421,584	33,867	455,451
1927–28	474,683	475,175*	43,631	518,806
1928–29	541,606	496,399	28,769	525,168
1929–30	672,289	532,367*	22,160	554,527
1930–31	830,254	668,083*	36,903	704,986

* Exclusive of repayments to the Imperial Exchequer of amounts on account of grants-in-aid received in 1924–25 and 1925–26.

In addition to the recurrent and extraordinary expenditure, the Government expended the net sum of £340,979 during 1930–31 on development schemes in anticipation of the raising of a loan under the authority of the Loan Ordinance, 1931. During the year expenditure was financed partly by a loan from the Joint Colonial Fund and partly from surplus balances. The development schemes that are being undertaken by the Government are as follows :—

	Estimated Total Cost.	*Expenditure as at 31st March,* 1930.	*Expenditure during* 1930–31.	*Expenditure as at 31st March,* 1931.
	£	£	£	£
Civil Buildings	1,131,000	36,119	138,539	174,658
Municipal Requirements	127,500	17,975	35,112	53,087
Communications	557,850	125,607	84,934	210,541
Air Surveys	76,175	17,311	28,666	45,977
Agricultural Development	200,400	28,125	18,976	47,101
Miscellaneous	64,950	685	34,752	35,437
	£2,157,875	£225,822	£340,979	£566,801

The Banks that operate in Northern Rhodesia are the Standard Bank of South Africa, Limited, which has branches, sub-branches, or agencies at Livingstone, Mazabuka, Lusaka, Broken Hill, Bwana Mkubwa, Ndola, Luanshya, Roan Antelope Mine, Nkana, Nchanga, and Mufulira, and Barclays Bank (Dominion, Colonial, and Overseas) which has branches, sub-branches, or agencies at Livingstone, Lusaka, Broken Hill, Bwana Mkubwa, Ndola, Luanshya, Roan Antelope Mine, Nkana, Nchanga, Mufulira, and Fort Jameson.

The total amounts deposited with these Banks at the 31st December, 1930, were £1,282,812 as compared with £782,509 at the 31st December, 1929.

The Post Office Savings Bank has increased its operations, the deposits at the 31st March, 1931, amounting to £11,207 as compared with £7,682 at the 31st March, 1930. During the year the amount invested on behalf of depositors increased from £6,000 to £11,329. The sums deposited during the year 1930–31 amounted to £12,996 as compared with £8,499 in 1929–30. At the 31st March, 1931, there were 712 depositors, a net increase of 209 for the year. The Savings Bank continued to grow in popularity and provided a much needed service.

III.—PRODUCTION.

Land and Agriculture.

Of the total approximate area in the territory of 184,576,000 acres, the North Charterland Exploration Company holds a concession over 6,400,040 acres, subject to the assignment of native reserves amounting to 2,148,440 acres. The British South Africa Company owns, subject to the assignment of native reserves of 1,094,475 acres, three freehold areas in the Tanganyika Province, comprising 2,758,400 acres. 2,786,352 acres have been otherwise alienated for purposes of European settlement, not including 84,420 acres of land leased without option to purchase. The total area of alienated land is, therefore, 12,029,212 acres, about 6½ per cent. of the whole territory. Most of the alienated land is used for grazing, some of it is cultivated, but a large area is unsuitable for either grazing or cultivation owing to the absence of water. The following table will give a comparative idea of the acreage of the various staple crops under cultivation in the six previous seasons :—

Season.	*Maize.*	*Tobacco.*	*Wheat.*	*Total under cultivation.*
	acres.	*acres.*	*acres.*	*acres.*
1923–24	42,377	2,462	1,250	52,243
1924–25	35,568	4,323	2,633	61,712
1925–26	36,470	4,939	3,387	60,297
1926–27	44,837	6,719	2,780	69,837
1927–28	43,889	7,339	1,819	62,928
1928–29	39,215	3,232	2,698	67,207
1929–30	47,085	3,487	2,299	66,429

Included in the last column are smaller areas planted with cotton, fodder crops, groundnuts, potatoes, kaffir corn, oats, etc., which are considered minor crops.

During the preparation and planting period and up to the end of 1929 there was ample rain. The latter part of the season, however, was characterized by protracted droughts which seriously reduced crop yields, the most serious being those in the first half of January and in the middle of February. There was an abnormal amount of rain in the early part of April, and, while this undoubtedly removed certain anxiety with regard to grazing, it was naturally too late to have any marked effect on the crops. In the three principal maize-growing areas, Mazabuka, Lusaka, and Chisamba, the total rainfall was hardly two-thirds of the normal, and the drought was especially marked in the Lusaka district, where less than 19 inches of rain were received. Even this precipitation, if evenly distributed, would be ample for the growth of crops, but the alternation of deluges and droughts was extremely unfavourable.

The acreage under maize was increased by 7,900 acres over that of the previous year, but the total yields were almost identical. This was mainly due to the unfavourable season, which materially reduced the average yields in the three principal centres, Mazabuka, Lusaka, and Chisamba, the fall in yield being particularly marked in the case of Chisamba. The following table gives maize statistics from 1921 onwards :—

Year ending 31st December.	*Acreage in thousands of acres.*	*Average yield per acre.*	*Yield in thousands of bags.*	*Farm consumption in thousands of bags.*	*Surplus available for sale in thousands of bags.*
1921 ...	29	4·88	145	18	127
1922 ...	25	3·49	99	18	81
1923 ...	38	5·18	199	32	167
1924 ...	35	3·08	129	28	101
1925 ...	36	2·67	95	23	72
1926 ...	36	4·87	177	37	140
1927 ...	44	5·50	250	36	214
1928 ...	44	4·59	183	32	151
1929 ...	39	5·50	201	33	168
1930 ...	47	4·30	202	37	165

The area under irrigated wheat was 2,095 acres, a decrease of 447 acres on that of the previous year. Yield, however, rose from 4·2 bags to 4·6 bags per acre. The total production of irrigated wheat was 9,583 bags. Comparative figures for wheat for the past six years are as follows :—

Year.	*Acreage Planted.*	*Yield in Bags of 200 lb. Net.*
1925	2,633	9,895
1926	3,387	11,687
1927	2,780	10,586
1928	1,819	8,754
1929	2,698	12,141
1930	2,299	9,583

3,487 acres of Virginia tobacco were planted, representing an increase of 255 acres for the season. There was actually a decrease in the acreage planted in the north-western area, but in the north-eastern district the acreage rose from 2,954 to 3,325 acres. The average yield, however, was slightly lower, being 433 lb. per acre as opposed to 456 lb. The total production was 1,317,772 lb.

Cotton-growing in the territory was confined to a few small experimental plots established by farmers at the request of the Department of Agriculture. The experimental work at Mazabuka, which is assisted by the Empire Cotton Growing Corporation, has progressed satisfactorily. Current prices preclude the possibility of the adoption of cotton as an export crop, but in the meantime, such information is being acquired as will enable the prospects of the crop to be assessed by farmers should a rise in prices render export feasible.

The area under groundnuts (2,213 acres) was nearly double that of the 1928–29 season but the average yield fell from 10 to 6·8 bags per acre, thus the total production of 14,333 bags is but 3,000 more than in the previous season.

It is gratifying to record that considerably more attention is being paid to the growth of leguminous crops for forage and as green manure. Sunnhemp has become increasingly popular. 1,378 acres of this crop were planted during the season as opposed to 273 acres in the preceding one. The ease with which sunnhemp is established, smothers weeds, and is ploughed in, largely accounts for this popularity, and many farmers are saving their own seed in order to avoid the expense involved in its purchase.

Those engaged in all branches of agriculture in Northern Rhodesia still have to meet many difficulties, and for the past two or three seasons the climatic conditions have been far from ideal in many of the settled areas.

There is evidence that more and more of our farmers are realizing the benefits of smaller acreages, well cultivated, and substituting these for large acreages which cannot receive adequate treatment. There is still room for improvement in this respect but it is obvious that more forethought is being given to the general programme which is to be followed.

It was reported, last year, that funds are now available for loans to settlers for specific objects in connexion with the agricultural industry. A certain number of farmers have been able to benefit by these loans, but many have been precluded from obtaining them by reason of the nature of the security which they were required to give. Towards the end of the year, further consideration was given by Government to this matter, and, as a result, an attempt is to be made to render more elastic the conditions under which loans are given. If the scheme which is now under consideration comes into operation, it will be possible for more settlers to obtain loans under decidedly advantageous terms.

An Agricultural Survey Party commenced operations at the beginning of the dry season. At the end of the year, reports had been received of the unalienated land, in the districts adjoining the railway line, as far north as Mazabuka. A further report covering the land up to the Kafue River is being compiled. As soon as climatic conditions allow, the Party will continue its work north of the Kafue River and it is hoped that, towards the end of the year 1931, full reports of all unoccupied Crown lands from Kalomo to the mining areas in the north will be available. The importance of the work of this Party cannot be too greatly emphasized. It will enable Government, and intending settlers, to estimate the possibilities of the land which is available, but settlement will not be encouraged unless and until Government is assured that it is economically possible for success to be achieved by those who, by training and experience, are fitted for farming under the conditions which obtain in the territory.

There was no striking development in native agriculture, but demands for native-grown foodstuffs continued to be high, and in some districts the demand exceeded the supply.

If the tendency of European settlers to adopt " mixed farming " continues, the natives are likely to capture a good share of the maize-market. The use of the plough and other implements is steadily increasing, and there is a growing tendency for natives to apply for land outside reserves for small-farming purposes.

Some difficulty has been experienced in obtaining all the labour which is required for farming operations. The demands in the mining areas, during the development period, have been truly enormous. The work of making deviations, and generally strengthening the railway line in the territory, has caused still more demands for native labour. The result has been that wages in all industries have risen. Those employees, by no means confined to agriculturists, who have not made adequate provision for housing and other conditions, have found themselves unable to obtain all the labour they required. There are, however, still a large number of natives who prefer work upon farms ; such can be expected to remain provided that their remuneration and general treatment are satisfactory. The competition for labour has caused the introduction of labour-saving machinery and tractors. The latter in particular are now coming into use, and although the cost of ploughing is thereby increased, the benefits reaped by preparing large acreages in the shortest possible time have been realized.

Northern Rhodesia has been free from any considerable outbreak of locusts for many years. Toward the end of 1929, however, the presence of locusts in the Mweru-Luapula Province was reported, the Kawamba and Chienje Districts being chiefly affected. The entomologist toured the vicinity of the Mweru marsh in October and came to the conclusion that this area was the breeding ground of the red locust (Nomadacris septemfaciata), which opinion is strengthened by the fact that the marsh has been the source from which all flying swarms reported in the territory have come.

In May, a large flying swarm flew northward from the marsh and was traced to Kambe in the Belgian Congo. In November, this territory was invaded, near Solwezi, by large swarms which proceeded in a southerly direction from the Belgian Congo. It seems probable that this invasion was due to the deflection of the swarm which left the Mweru marsh in May flying northwards.

The swarm pursued its general southerly direction, passing through the districts of Solwezi, Kasempa, Mamwala, Kalomo, and Livingstone, and then left the territory, in the direction of Maun, at the end of the year. Energetic measures taken by District Officers to locate areas in which eggs had been laid proved unsuccessful, but an examination of locusts caught in the southern part of the territory showed that some were no longer gravid, whereas it was known that swarms were gravid on entering the territory. It is fairly certain, therefore, that egg-laying has occurred within the territory and that outbreaks of hoppers may be expected in the early part of 1931. The extremely difficult and uninhabited nature of the country militates against any efficient intelligence service, and, in spite of the vigilance of District Officers, it is feared that many swarms will not be noticed until they reach the flying stage. A Circular regarding locust destruction was issued to all administrative officers, and a supply of poison was made available at the Research Station. In view, however, of the locust-eating propensities of some of the native inhabitants, and on account of the danger to cattle, resort to poison will only be made when its use can adequately be supervised.

In the Report for the year 1928, the rapid growth of the local markets was discussed. In last year's Report, this was again referred to and it was pointed out that although everything which the farmers of Northern Rhodesia can produce could be absorbed, it was by no means certain that everything produced could be sold, unless combination of growers was effected and adequate marketing arrangements made. At the beginning of the year under review, an unforeseen factor, which had far reaching effect upon the agricultural industry, came into being. This was the placing of a lowered flat rate upon maize and maize meal from any place in Southern Rhodesia to our northern border including, of course, the mining areas which form the bulk of our markets.

Prior to 1st January, 1930, the cost of railing maize and maize meal from the principal maize growing centres in Southern Rhodesia to the mining areas in Northern Rhodesia was such that we enjoyed a preference of from 2*s*. 8*d*. to 2*s*. 11*d*. per bag of maize, and 2*s*. 10*d*. to 3*s*. 1*d*. per bag of maize meal. The flat rate which was introduced on that date lowered the preference to 1*s*. 6*d*. to 1*s*. 9*d*. per bag of maize and 1*s*. 2*d*. to 1*s*. 5*d*. per bag of maize meal. The natural consequence was that the price of Northern Rhodesia maize fell. The lowered rate operated very hardly upon the Northern Rhodesia growers. The agricultural industry is not so highly developed, or organized, as in the Colony to the south. With the exception of one district, we have no areas devoted entirely to its production such as are found in, for example, the Mazoe Valley of Southern Rhodesia. The cost of producing a bag of maize is, and must continue to be, higher in Northern than in Southern Rhodesia. Everything necessary on the farm is subjected to higher railway rates; the cost of labour, owing to the competition from the mines, is just as high: the cost of living is higher. The absence of adequate facilities for secondary education makes it imperative that children be sent elsewhere; the climatic conditions necessitate comparatively frequent holidays to a more temperate region if health is to be maintained. All these higher costs must be taken into consideration when estimating the price which a farmer must receive for his produce. Competition from the south had always been keen and the sudden imposition of a railway rate, highly favourable to our competitors, was most serious.

It is obvious that every possible effort must be made by our producers so to organize themselves that the cost of production and handling will be reduced to a minimum, and to show that every effort is being made to meet local requirements at the lowest price commensurate with fair profits. There is evidence that such organization is likely to take place in the near future.

Our export crops are now almost entirely limited to tobacco. The position of the English market, in connexion with leaf grown in the Empire, has been fully discussed in former Reports. The precautions taken, as a result of the assistance rendered to growers by Government, have resulted in only good quality leaf being exported. This is steadily being absorbed by the market, but the quantities disposed of are so small that it is impossible for planters to grow more than very limited amounts. A Commission, financed by the Governments of Southern Rhodesia, Nyasaland, and Northern Rhodesia, visited England during the year to enquire into conditions in the home markets, and the steps which could be taken to increase sales. The reports received are by no means optimistic. Our leaf is being used in increasing quantities in pipe mixtures, but the large manufacturers still decline to use any large quantities in the manufacture of cigarettes. American-grown leaf is still used for the bulk of the cigarettes on the English market, and the results of efforts to persuade those concerned to use Empire leaf have not been encouraging. Increased production of leaf in Northern Rhodesia cannot, at present, be encouraged.

Our coffee, although still exported in small quantities, has retained its popularity with buyers, and there is reason to anticipate that the increased quantities expected in the future will be disposed of at satisfactory prices.

It is becoming increasingly recognized that the dependence of our farmers upon one main crop is not economical, and attempts are, therefore, being made to develop upon more general lines. That this policy is justified is shown by the following figures detailing the importation of foodstuffs into the territory during the year.

		Quantity.	*Value.* £
Butter	lb.	341,543	27,632
Maize	lb.	11,002,396	21,307
Maize Meal	lb.	24,269,348	67,803
Flour and Meal ...	lb.	3,333,051	40,325
Eggs	No.	2,993,599	25,184
Groundnuts	lb.	290,681	2,309
Bacon and Ham ...	lb.	238,547	17,194
Fresh Vegetables (including Potatoes and Onions) ...			15,208
Pulse...	lb.	3,464,779	20,135
Cattle for slaughter ...	No.	10,812	49,373
Fertilizers	lb.	970,845	4,121

An endeavour has been made to show the necessity for complete reorganization of our agricultural industry and for remodelling our methods upon a wider basis of general farming, including wholehearted co-operation. If such be obtained, the outlook for the future will change. The markets are available and the produce can be grown. With these two factors certain the prosperity of the industry depends almost entirely on economic production and efficient organization.

At the close of the rainy season 1929–30 conditions for the stock were, on the whole, comparatively favourable. The break in the rains during February caused no little amount of uneasiness, but the late rains continued, in many districts, until well into April and resulted in adequate pasturage. In portions of the Mazabuka and Livingstone districts, periods of bright sunshine are liable to be followed by heavy storms which, apart from the damage of erosion, result in much of the moisture being lost. The total rainfall in these areas cannot, therefore, be looked upon as indicative of the benefits conferred.

During the later months of the dry season, losses from malnutrition, particularly amongst old cows and weaners, were reported. Much of the unimproved pastures are incapable of providing sufficient nourishment during the whole of the year, and on some of the better pasturage, overstocking is evident. An important contributing cause to losses from poverty is the destruction of grazing by veldt fires. The precautions taken by some cattle owners to preserve the grazing are quite inadequate and some do not take any precautions at all. On the other hand, fires are, undoubtedly, set alight by some malicious persons and detection is not easy.

The general improvement of European-owned cattle is not progressing as rapidly as could be wished. More supervision of herds is exercised now than formerly, but it must be realized that until the general conditions of husbandry, under which cattle are to be maintained, have reached a higher standard, no great improvement can be anticipated. The unimproved pastures of the territory offer insufficient nourishment for the production of good class beef. By means of fencing and systematic grazing considerable improvement can be effected. In this way the long rank grasses which are of little feeding value become gradually eliminated and a shorter and more thickly growing pasturage is encouraged. Improvements such as these require an outlay of capital, which is at present beyond the reach of owners, but the cultivation of a piece of land for the production of subsidiary foodstuffs and the introduction of others into the general rotation of the crops grown can be carried out gradually. This would entail a minimum amount of expenditure, and result in financial gain from the cattle themselves and in benefit to other agricultural operations.

It has been argued that the return from the cattle placed upon the market has been insufficient to warrant such a progressive policy as is indicated, but the fact remains that whatever the price which has been paid at auctions, it has always been appreciably higher when the cattle have been in really good condition.

It is becoming more and more certain that the disappointing results which have been experienced in the process of improving the quality of the herds in some cases are due, not so much to particular breeds, but to the conditions under which they are kept. Highly bred animals cannot thrive under ordinary ranching conditions. There is a deficiency, probably mineral, in our pastures which operates against the development of other than indigenous stock. The experiment of introducing Afrikander bulls amongst highly graded herds has been tried in order to increase the stamina and "hardihood" of the progeny. On one particular ranch it was found that such progeny fell away in condition during a difficult dry period, whereas the almost pure-bred cattle on another farm, complete with adequate fenced paddocks, showed but little loss of condition. On those farms where fencing has been erected the results are most obvious.

It is evident, however, that supplementary rations are essential if cattle are to be put on the market in good condition during the dry months. The effects of feeding bone meal are such that this practice should be followed by all stock owners.

The necessity for devoting more attention to the problem of nutrition, in connexion with the cattle industry, is emphasized, and experiments to this end are being conducted at the Central Research Station.

Realizing that many stock owners are unable financially to carry out reforms and improvements which they realize are necessary, Government had arranged for loans to be made, on favourable terms, for such improvements as :—

Importation of Improved Stock ;
Erection of Fencing ;
Erection of Buildings ;
Erection of Dipping Tanks ;
Purchase of Machinery ;
Sinking of Boreholes.

A most important step in connexion with the native cattle industry has been taken during the year under review. A number of dipping tanks have been completed for use in Native Reserves. When the dipping of native herds was advocated, the objectives in view were many. That the dipping would result in lowering the incidence of disease, and assist in maintenance of condition, was certain. In addition to this, it was felt that it would serve as a demonstration of the desire to assist, and would give that opportunity for adequate control which has been impossible in the past.

Officials of the Department of Animal Health were in the past only able to make periodical inspections of native-owned stock and it was always felt that the stock inspections were of comparatively little value ; the posting of Dipping Inspectors in Native Reserves has brought this Department into more intimate contact with native cattle owners than formerly. As a result of the confidence obtained, any evidence of disease, however trivial it may appear, is immediately reported to the Dipping Inspector by owners in the neighbourhood. In this way early action can be taken to deal with any specific outbreak, with a very considerable lowering of the mortality.

When the question of dipping was discussed with certain Headmen and Chiefs it was received with an evident lack of appreciation, some even going so far as to decline to consider it. It was decided, therefore, to build two tanks in selected places in each of the three Veterinary Districts near the railway line in order to judge what success or otherwise might be expected. So soon as these were completed and regular immersions arranged, requests began to be received from other natives in the vicinity. One important Chief who had, during the previous year, flatly refused an offer of a tank, became most pressing in his desire for one to be established near his people. This particular tank has been completed and regular dipping is now carried on. One tank remains idle, the Headman refusing to allow his people to dip their cattle, even though some of them are not only willing but anxious to do so. Although only eight tanks have been completed, the results have more than justified expectations.

The success of the work of inauguration is due to no small extent to the close liaison which exists between the Department of Animal Health and the Department of Native Affairs, and to the whole-hearted support given by Provincial Commissioners and District Officers.

Certain Headmen who have proved their interest in dipping by sending their herds regularly to the tank have been presented with a cross-bred bull. This practice will continue. No bulls, however, will be given until there is evidence that the herds with which they are to run are being treated in a proper manner. It is hoped that improved conditions will result in better sales and in purchases by the natives themselves of still more improved stock. The process must be slow but it is hoped that foundations are now being laid upon which a sound native cattle industry will be established.

Apart from the foregoing, little improvement in the majority of native-owned herds can be reported. There is still, on the whole, the same apathy as regards their welfare. Little or no attention is paid to animal husbandry, but it is useless simply to point out what improvements are required ; demonstration of better methods is essential. It is confidently anticipated that as time goes on, that demonstration will be made by the herds which are coming more under the control of the Department of Animal Health.

During the year, the effect of lack of organization with regard to the marketing of cattle became apparent. Buyers contended that there were insufficient cattle of good quality in the territory, and continued their policy of looking elsewhere for their supplies. Settlers informed Government that they could not find buyers for their stock, whilst contractors stated that they were unable to purchase sufficient for their requirements. Slaughter cattle for our own mining areas were imported and chilled and frozen meat was purchased in Bulawayo.

It has become evident, from inspections of imported stock, that price, and not quality, is the controlling factor.

The position was one of considerable danger to the prospects of the farming community of the territory, and towards the end of the year Government decided to make an endeavour to bring about a better state of affairs. The Director of Animal Health prepared a scheme to deal with the combined marketing of all stock. The scheme is designed to ensure co-operation with contractors, and the organization necessary would guarantee regular delivery of cattle at a pre-arranged standard price per hundred pounds live or dead weight. The whole-hearted support given to this scheme in its initial stages augurs well for its future success. If conditions both as to rearing and marketing can be improved in the manner indicated there is every prospect of a sound industry resulting.

Mining.

PRODUCING MINES.

Broken Hill Mine.—The operations of silicate ore mining and electrolytic zinc production were conducted on a scale representing 47 per cent. increase as compared with last year. In most departments of the zinc production, economies and improvements were effected. A programme to complete the vanadium refinery and to alter the zinc plant for improved recovery of vanadium was carried through. Numbers 1, 2, and 3 Kopje Mines were all worked upon either for ore mining or in preparation for the proposed vanadium and zinc recovery. The power generated at the Mulungushi power station was half as much again as in 1929 and nearly twice that of 1928.

Economy was effected by a drop of 800 in the number of native labourers employed.

Bwana Mkubwa Mine.—The opencast has been in good condition for mining and over 200,000 tons of ore went for treatment, averaging 2·74 per cent. of copper, with the production of about 3,700 tons of metal. Ore reserves are given at approximately 2,000,000 tons at 4 per cent. down to the 250 feet level. Over 500 tons of copper concentrates were received from Nkana and smelted, producing a further 400 tons of copper from the Nkana concentrate. During the year the ore treatment furnaces had been eliminated from the process, whereby and through other economies working costs had been reduced to £55 18*s.* 4*d.* per ton.

The average number of natives employed was 1,680.

Luiri Gold Areas.—At both Matala and Dunrobin some development was carried out and ore was sent to the Matala mill from shallow stopes. The area “ B ” 42,000 acres in extent, has been geologically mapped, surveyed, and delimited by beacons.

Star Zinc Mine.—Zinc ore mining ceased after the first quarter. Two diamond drills have been at work completing 7,000 feet of drilling. Some pits and trenches were dug.

Sachenga Mica Mine.—The Northern Rhodesia Ruby Mica Company Limited, were forced into retrenchment and finally into voluntary liquidation but about four tons of mica were shipped. Approximately one European and 100 natives were employed during the year.

DEVELOPING MINES.

Roan Antelope Mine is now probably within six months of the actual production, at least of concentrates, upon the intended scale. The construction of the smelter may cause some delay in the production of metal.

Residences, hostels, club buildings, plant shop and warehouse buildings, power plant and coal power pulverizer have been worked upon and are now practically complete. Crushing and concentrator plants are well under way and the smelter has been commenced. Underground development increased each month of the year so that in December month 8,000 linear feet were developed, making a total for the year of nearly 45,000 feet, excluding excavations for stations, sumps, etc.

The pilot plant operated until June and produced 133 tons of concentrates which were shipped for experimental work. At the end of the year Europeans on the pay roll numbered 994, and natives 4,894.

Ore reserves estimated in October were approximately 100,000,000 tons of 3·44 per cent. copper, 95 per cent. as sulphide.

The expenditure for the year on development and equipment amounted to one and a half million sterling.

Nkana Mine.—In addition to the sinking of several smaller development shafts, a main five-compartment hoisting shaft with a 120 feet steel head frame was sunk to a depth of 499 feet, 450 feet of which was concrete lined.

About 30,000 tons of ore were treated in a pilot mill producing over 1,000 tons of 51 per cent. copper concentrates.

In construction great headway was made so that fully equipped plant shops of every kind are now in daily use. A new 3,000 kilowatt pulverized coal power plant, concentrator buildings, and various machines were completed, whilst foundations for crushers, ore-bins, smelter stack, smelter buildings, and furnaces are either completed or well under way. The branch railway to the mine was opened in May and immediately put to use. Several miles of line to the plant site were completed; native quarters, compound buildings, and a splendid native hospital were built and occupied. A recreation hall, 148 substantial residences fully equipped with modern conveniences, single quarters for 348 men, school houses, post office, and police camp were also completed.

The Mindola ore body has been proved for a distance of four miles along the strike.

Mufulira Mine.—Exceptionally fine progress was made in town-site and plant construction and in many other different ways although delays have been experienced underground owing to water. Under more recent plans no doubt underground work will show a corresponding advance in the future.

Five shafts including the large concrete-lined circular shaft were worked upon. One drill hole to 3,300 feet proved the consolidated nature of all formations and the high value of the third ore body at that depth; including 15,000 feet of borehole drilling, 21,000 linear feet of total development were completed.

The "Trabeka" (Belgian) Company have been at work upon a very large building programme at Townsite where water-borne sewage has been installed.

The total proven and indicated ore reserves are given as 116,000,000 tons of 4·41 per cent. copper.

At the Chambishi Mine, now controlled by the same Company, Mufulira Copper Mines, Ltd., quarters and power plant have been erected for the sinking of two shafts which are now being sunk for development of the ore body. 8,000 feet of borehole drilling were completed while 7,783 feet of pits and 156 feet of shafts were also sunk.

Nchanga Mine.—Detailed geological work ceased and borehole development was practically confined to the south limb where 12,000 feet of drilling were done. Sinking in No. 10 vertical shaft. 439 feet of cross-cutting, together with station and sump excavations were carried out.

Twenty-one miles of new roads and three steel river bridges have been constructed. The railway will be completed to Nchanga by February.

Turbine sets, boilers, headgears, compressors, and other plant have been erected and a considerable programme of building for residences, etc., has been carried out.

At least 64,000,000 tons of 3·8 per cent. copper have been proved.

Kansanshi Mine.—For the previous year's programme of underground exploration and diamond drilling was this year substituted the carrying out of development for the working of the mine. For this purpose two new shafts were sunk and are being connected by a main drive whilst a series of cross-cuts are being driven out across the deposit.

Ten thousand feet of drilling and also a total underground development of 9,500 linear feet were completed, and the numbers of both European and native employees were practically doubled during the year, the figures rising to 94 Europeans and 1,500 natives in December.

It has been reported that 8,000,000 tons of 4·15 per cent. ore are in sight from which a quarter of a million tons of copper could be recovered.

PROSPECTING DEVELOPMENT.

Rhodesia Congo Border Concession.—Twelve geological parties have been actively engaged traversing different parts of the whole area.

The proved ore body to the west of Nchanga Mine is somewhat irregular so that underground development will be necessary before any precise estimate can be given of value. In view of the obvious value of this deposit the company is now proceeding to develop and equip the mine. General activities in the Nchanga neighbourhood have therefore expanded considerably during this year. Two shafts are being sunk and have reached 492 feet and 150 feet, respectively.

Metallurgical investigations to enable a choice to be made of the best method of treating the ore of this neighbourhood have been actively pursued and no difficulty is anticipated in effecting a high recovery of copper.

Luangwa Concessions.—The prospecting and mapping of the Company's concession area was actively carried on by geologists and prospectors averaging 30 in number. In addition, a certain amount of development work was done, notably drilling at Ruanbura (Kasempa) and on coal prospecting areas in the Mumbwa District but considerable trenching and potholing was also carried out on a number of other prospects.

Rhodesia Minerals Concession.—Prospecting was carried out this year under the guidance of the Rhodesian Anglo-American Company. Beginning in the rainy season with four Europeans this number was increased in April to eight geologists and one prospector, so that 1,600 square miles were covered by thorough traversing methods before the end of September. "Charambana Copper" and "Bismuthia" areas were re-examined. Many new discoveries of a variety of minerals have been made which will demand further exploration.

Sable Antelope Mine.—The Kafue Copper Development Company, Limited, decided to undertake a geological survey of their three areas in the "Big Concession" north of Mumbwa, with a view to exploration by drilling. A geologist was put in charge during April and assistants arrived later. About 15 square miles have already been most carefully surveyed and geologically mapped by means of parallel traverses and a photographic survey was made to the same scale of 8 in. to the mile.

No mining was done, but a number of small prospects revealed in the field work are now being developed by pits. In one case drilling was begun during December.

The company built 10 miles of new roads.

At the *Kansonso Copper Locations* in the Mumbwa District, little, if any, work has been done.

On the *Mumbwa Coal Areas* Calex and diamond drilling during the year have proved the existence of coal although the available reports as to its usefulness are not encouraging.

Coal Measures, South East of Mazabuka (in the line of the proposed Sinoia-Kafue railway line).—The London and Rhodesian Company of the North Kariba Company have pegged a number of coal locations at the edge of the escarpment in the Zambezi Valley.

The Wankie Colliery Company have abandoned the coal areas at this place, reporting that the geological formation there is too high to permit of useful coal being found.

In the *North Charterland Concession* the Mining Trust of Northern Rhodesia were not successful in making important discoveries and ceased operations at the end of the year.

GENERAL.

The producing mines have been seriously affected by the general depression as metal prices have been so low from early in the year, and it is for the future to show whether the copper mines of this territory will be able to operate at the prices likely to prevail when the production stage is reached. The speed with which general preparations for copper production have been carried on during the year, the fusion of all the companies concerned into two powerful groups, the Rhokana Corporation and the Selection Trust Limited, are, however, propitious omens for the future of the industry.

The triennial Empire Congress of Mining and Metallurgy was held in South Africa and its visit to this territory's mines was not only a highly popular and successful feature but one of great advantage to the territory, stimulating the growth of British interest. Some new literature was published for the occasion by the mining companies.

The mines labour force increased to 3,307 Europeans and 29,689 natives in December.

The following table shows the mineral production during 1930 :—

MINERAL PRODUCTION, 1930.

			£	s.	d.
Gold	7,513.78 oz.	F.	31,903	13	0
Silver	637.27 oz.	A.	46	5	0
Copper	6,269.02 tons	A.	343,767	0	0
Lead	Nil.				
Zinc	20,015.08 tons	A.	339,825	6	0
Vanadium	122,577 lb.	B.	87,320	10	0
Manganese Ore	872.68 tons	C.	1,309	0	0
Iron Ore	9.45 tons	D.	4	14	0
Mica	8,954 lb.	E.	2,238	10	0
			£806,414	18	0

A.—Average London Market Price.
B.—Value at 14s. 3d. per lb. Vanadium metal.
C.—Value at Mine, £1 10s. per ton. Used in Zinc Works.
D.—Value at 10s. per ton. Used in fluxing.
E.—Value at 5s. per ton.
F.—Value at £4.24773 per oz.

IV.—TRADE AND ECONOMICS.

For Customs purposes Northern Rhodesia is divided into two zones known as the Congo and Zambezi Basins. The Congo Basin can roughly be taken to be all the territory north of a line drawn on a map of Northern Rhodesia in a south-westerly direction from Fife in the north-east, to the border where the territory joins the south-east corner of the Belgian Congo. The Zambezi Basin is the rest of the territory, lying to the south of that line.

The Zambezi Basin area is subject to Customs Agreements with Southern Rhodesia, the Union of South Africa, and with the British Bechuanaland Protectorate, Basutoland, and Swaziland. The Agreements provide for considerable rebates upon interchange of local manufactures, and for the free interchange of raw products with limitations in regard to leaf tobacco.

The Congo Basin part of the territory is within the area defined by the Berlin Conference of 1885, and under the terms of the Convention revising the General Act of Berlin of 26th February, 1885, and the General Act and Declaration of Brussels, 2nd July, 1890, signed at St. Germain-en-Laye, 10th September, 1919, commercial equality within this area must be granted to nationals of the Signatory Powers and those of States Members of the League of Nations which adhere to the Convention ; this part of the territory is therefore excluded from the terms of the Customs Agreements mentioned in the preceding paragraph.

The tariff provides for British preference in the case of the following classes of goods, which are mainly liable to *ad valorem* rates of duty ; clothing, blankets, and rugs, cotton piece-goods and all articles mainly imported for household and native use, the duty on British products being 9 per cent. and the duty on foreign products varying from 15 to 25 per cent. ; agricultural, electrical, mining, and other industrial machinery, pipes and piping, metals and metal manufactures imported for industrial purposes if of British manufacture are free of duty, but if of foreign origin are subject to an *ad valorem* duty of 5 per cent.

The combined value of trade imports and exports for the year 1930, amounted to £5,748,698, as compared with £4,502,153 in 1929 and £3,213,385 in 1928.

The value of merchandise imported during the year under review amounted to £4,862,722, as against £3,602,417 in 1929, an increase of £1,260,305 or 35 per cent.

In addition, Government stores to the value of £69,792, and specie to the value of £21,206 were imported.

The total exports were valued at £885,976 as compared with £899,736 in 1929, a decrease of 1·5 per cent.

The trade of the territory again shows very satisfactory progress but the export figures do not indicate the remarkable growth and development of the country during the past four or five years, the reason being that the production stage has not yet been reached in the copper mines of the north. Development has been proceeding at a great pace, however, and the phenomenal increase in our import trade since 1924 is mainly due to the importation of mining machinery, transport materials, and other capital goods.

In regard to our export trade, this cannot be expected to increase substantially until the copper mines are producing to the extent for which preparations are at present being made, but it can be anticipated that the value of the output of copper within a few years will be in the neighbourhood of four to five million pounds per annum.

The trade balance of imports over exports amounts to £3,976,746 as compared with £2,702,681 in 1929; increased importations in connexion with the mining industry, which are not counter-balanced by output, account for this large balance in favour of imports.

The following summary furnishes a comparison of the value of imported merchandise which originated from British and from foreign countries during the years 1928 to 1930:—

Imports from:	1930 £	1929 £	1928 £
Union of South Africa	357,303	327,893	245,909
Southern Rhodesia *	856,069	534,366	371,469
United Kingdom and other British possessions	2,199,789	1,679,000	1,135,775
Total British Empire	3,413,161	2,541,259	1,753,153
Foreign Countries	1,449,561	1,061,158	613,164
Total Merchandise	£4,862,722	£3,602,417	£2,366,317

* Includes produce of the Union removed from Southern Rhodesia.

For the purpose of illustrating the routes of trade, the following table shows the value of merchandise received from the Union of South Africa, from Southern Rhodesia, and directly from overseas during the years 1928 to 1930:—

Imports from:	1930 £	1929 £	1928 £
Union of South Africa	947,026	989,649	572,635
Southern Rhodesia	2,101,016	2,193,304	1,444,766
Imported from overseas	1,814,680	419,464	348,916
Total	£4,862,722	£3,602,417	£2,366,317

The following table illustrates the comparative value of the principal classes of imports during the years 1928 to 1930 :—

	1930 £	1929 £	1928 £	*1930 Percentage increase as compared with 1929*
Animals (living) ...	71,032	27,668	28,965	157
Foodstuffs, etc. ...	457,870	302,675	200,722	51
Ales, Spirits, Wines, etc. (Potable) ...	174,504	108,888	86,160	60
Spirits (Non-potable)	2,032	1,344	867	51
Tobacco	88,203	59,336	44,624	49
Textiles, Apparel, Yarns, Fibres ...	609,741	592,442	471,114	3
Metals, metal manufactures, Machinery and Vehicles ...	2,206,841	1,595,084	902,110	38
Oils, Waxes, Resins, Paints, and Varnishes	286,951	184,021	102,982	56
Minerals, Earthenware, Glasses and Cement	304,207	205,014	161,993	48
Drugs, Chemicals and Fertilizers	87,920	80,256	89,396	10
Leather, Rubber and manufactures thereof	117,628	87,907	53,825	34
Wood, Cane, Wicker and manufactures thereof	208,427	152,851	82,311	36
Books, Paper and Stationery	62,415	52,967	33,940	18
Jewellery, Timepieces, fancy goods, etc.	63,546	49,959	42,027	27
Miscellaneous ...	121,405	102,005	65,281	19
Total imports ...	£4,862,722	£3,602,417	£2,366,317	35

The following summary furnishes a comparison of the value of exports to British and to foreign countries during the years 1928 to 1930 (excluding articles exported through the post and specie).

	1930 £	1929 £	1928 £
Union of South Africa	70,689	84,454	117,966
Southern Rhodesia	85,788	79,426	77,441
United Kingdom and other British possessions	556,709	470,058	374,644
Total British Empire	713,186	633,938	570,051
Foreign Countries	163,809	260,895	272,536
Total	£876,995	£894,833	£842,587

The following summary furnishes a comparison of the value of our exports to the Union, to Southern Rhodesia, to United Kingdom, and to other British Possessions, and to foreign countries, distinguishing domestic exports and imported goods re-exported, during the years 1928 to 1930 (excluding articles exported through the post and specie) :—

Domestic Exports.	1930	1929	1928
	£	£	£
Union of South Africa	54,230	71,676	108,105
Southern Rhodesia	19,112	35,904	38,725
United Kingdom and other British Possessions	539,705	460,665	367,545
Foreign Countries	155,801	250,882	269,394
Imported Goods Re-Exported.			
Union of South Africa	16,459	12,778	9,895
Southern Rhodesia	66,676	43,522	38,716
United Kingdom and other British Possessions	17,004	9,393	7,065
Foreign Countries	8,008	10,013	3,142
Total	£876,995	£894,833	£842,587

The following table illustrates the comparative value of the principal items of domestic exports for the years 1928 to 1930 :—

	1930	1929	1928
	£	£	£
Animals (living)	2,458	8,928	22,456
Hides, Skins and Horns	13,486	39,165	44,989
Ivory	3,883	8,922	9,911
Butter...	76	551	431
Wheat	2,870	13,855	9,218
Maize, including other cereals in the grain	16,545	25,567	29,964
Maize Meal	4,818	17,781	23,488
Pulse	667	1,040	185
Tobacco (unmanufactured)...	57,163	70,310	100,848
Cotton (raw)	5	158	238
Copper, Ore and Concentrates	3,078	6,018	9,063
Copper, Bar and Ingots	223,304	230,698	231,304
Lead	—	37,729	71,103
Vanadium	24,710	16,389	3,457
Other Ores	14,352	34,904	13,277
Zinc	341,660	262,611	—
Other Metals	—	—	* 166,866
Gold	26,511	3,441	1,815
Silver	48	12	23
Lime	930	940	948
Wood, manufactured and partly manufactured ...	17,053	20,316	26,037

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* Approximately 90 per cent. of this value consisted of zinc.

Under the terms of the Agreement with the Union of South Africa, Northern Rhodesia received actual duty at Union tariff rates on imported goods ex open stocks, except on certain commodities where the duties are higher in Northern Rhodesia, and upon South African manufactures the Union Government pays the Northern Rhodesia Government 12 per cent of the export value of foodstuffs and 6 per cent of the export value of all other manufactures excepting cigarettes, tobacco, ales and beers, wines, and spirits. The latter articles are directly taxed at Northern Rhodesia tariff rates subject to the following rebates :—Cigarettes and tobacco manufactures 75 per cent, ales, beers and wines 50 per cent, and spirits 25 per cent.

Under the provisions of the new Agreement with Southern Rhodesia a uniform tariff, as far as possible, is agreed upon, and actual import duty is paid upon removal of imported goods. Free interchange of raw products and manufactures is provided for, except in the case of ales, beers, wines, and spirits, which are taxed at import rates subject to the following rebates :—ales, beers, and wines 50 per cent, spirits 25 per cent.

On Union manufactures and imported goods removed from the Union of South Africa to Southern Rhodesia, and which are subsequently removed to Northern Rhodesia, the amount originally received by Southern Rhodesia from the Union Government is paid over to Northern Rhodesia, except on such articles of South African manufacture as are detailed above on which the receiving territory is responsible for collecting the duty.

The following are the ports of entry into and exit from Northern Rhodesia :—Ndola, Livingstone, Mokambo, Fort Jameson, Broken Hill (Free Warehousing Ports) ; Abercorn, Kansanshi, Fort Rosebery, Nchanga, Kawambwa, Mpika, Balovale, Mwinilunga, Isoka, Chiengi, Feira, Kazangula.

V.—COMMUNICATIONS.

Railways.

The principal means of communication is the railway, which, after leaving Livingstone, runs in a north-easterly direction, dividing the country into two nearly equal portions. It is now owned entirely by the Rhodesia Railways Company, which has purchased the section from Broken Hill to Sakania formerly owned by the Rhodesia-Katanga Junction Railway and Mining Company, and is part of a single system which stretches from Vryburg in Bechuanaland and from Beira in Portugese East Africa through Southern Rhodesia to Sakania in the Belgian Congo. This single line enters the Protectorate by means of a remarkable bridge—spanning the Zambezi River gorge at a height of nearly 400 feet and about 400 yards below and within sight of the Victoria Falls. This bridge has now been raised five feet and the superstructure widened to carry a 15-foot roadway. It passes Livingstone, crosses the Kafue River at the station of that name, and enters the Belgian Congo slightly north of Ndola. The total length of line within the territory is 507 miles.

There is a branch line to the Roan Antelope Copper Mine from Ndola, about 25 miles in length, which was opened for traffic at the end of December, 1928. The construction of the Ndola-Nkana Railway was completed as far as Nkana, a distance of 41¼ miles from Ndola, in May, 1930, and the extension to Nchanga, 43 miles from Nkana, was well advanced by the end of the year and is expected to be completed by June, 1931. In addition to the above branch railways, there is a railway constructed by the Mufulira Mine running from Mokambo in the Belgian Congo to Mufulira, a distance of 17 miles.

Roads.

With the exception of that portion of the Great North Road between Victoria Falls Railway Bridge and Livingstone, a distance of seven miles, and the private road of the Broken Hill Mining and Development Company leading from their plant and mine to the hydro-electric power station on the Mulungushi River, some thirty-six miles away, there are no macadam constructed roads in the country, and these two only can be described as "all weather" roads. All the other roads are earth roads, and though the smaller rivers are crossed by bridges made either of bush timber or occasionally of steel rails and the roads are embanked and sometimes gravelled where they cross marsh land, traffic is liable to be interrupted for at least two months in the year, usually in February and March.

During the last year there has been a further increase in the mileage of earth roads passable for traffic during the greater part of the year, together with a steady improvement of all roads, with embankments and gravelling over marshy areas.

The traffic returns show a tendency towards the use of heavier vehicles, and it has been necessary to restrict the weight of vehicles using the roads during the rains, in order to minimize the amount of damage caused to road surfaces. The policy of allowing rubber-tyred vehicles only on main roads and district roads and the provision of wagon tracks for other vehicles has been adopted.

The roadway over the Victoria Falls Bridge was completed by the Railway Administration. The Great North Road from Victoria Falls via Livingstone, Broken Hill, Mpika, and Kasama, to Abercorn and Mpulungu Harbour on Lake Tanganyika, where the Lake Steamer connects with Kigoma on the Tanganyika Railway, was kept open to traffic throughout the year, except for very short periods during the rains. The connexion between the Congo Border Road via Mumbwa to rejoin the Great North Road south of Broken Hill has also been completed.

The Great East Road which runs from Lusaka to Fort Jameson and connects with the Nyasaland road system, was open to traffic but at the onset of heavy rains it was decided to close the central portion, where the two large rivers, the Lunsemfwa and the Luangwa, have to be crossed by pontoons, and to re-open the road after the rains.

The relocation of the central portion of this road, involving a single bridge crossing over the Luangwa River, below its confluence with the Lunsemfwa, has been completed and construction of this deviation was commenced. The site for the Luangwa River Bridge was inspected by the Engineer for the Beit Trustees and approved.

Communication has been maintained with Fort Rosebery in the Mweru-Luapula Province by a road from Ndola, and by a road from Kasama on the Great North Road.

Posts, Telegraphs, Telephones, and Wireless.

The main telegraph lines are along the railway line, and are being equipped with high-speed automatic telegraph printing apparatus, both for internal working and for communication to Southern Rhodesia and the Union of South Africa. The existing lines are unsatisfactory and the construction has been sanctioned of a new telegraph-telephone trunk route from Livingstone to Ndola with extensions to the mining area, a route length of approximately 600 miles. A telegraph line also exists between Abercorn and the Nyasaland border, and another from the same border further south to Fort Jameson, the lengths of route being 149 and 8 miles respectively.

The number of telegrams dealt with during the year was 538,704 as compared with 388,048 in 1929, an increase of 39 per cent. The net revenue amounted to £17,110 as compared with £14,378, an increase of 19 per cent.

Trunk telephone communication is now being developed throughout the mining area and along the railway route. In outlying districts Abercorn is connected by telephone to Kasama and Mpulungu on Lake Tanganyika, distances of 108 and 7 miles respectively. A local trunk line also exists between Livingstone and the Victoria Falls. At Livingstone there is a magneto telephone system of 150 lines, the revenue from which during 1930 was £1,047 as compared with £827 in 1929. The present service is unsatisfactory and is being replaced by an automatic exchange and a reconstructed distribution system. Installations of automatic telephone systems at Ndola and Broken Hill are in progress. Privately-owned telephone systems are in operation at Broken Hill, Nkana, Luanshya, and Mufulira, and these will eventually be linked up to the Department's system.

A central wireless station (long and short wave) is being erected at Broken Hill, and six district short wave stations will be completed during 1931. All stations will be equipped for both telegraph and telephone communication.

Postal work shows a considerable increase and once more reflects the progress that the country has made. During the year, notwithstanding the re-introduction of penny postage, stamps and embossed stationery were sold to the value of £24,397 as compared with £21,980 in the preceding year. Money Orders were issued to the value of £82,298, and £22,380 was paid out in respect of money orders issued elsewhere. The corresponding figures for the preceding year were £62,693 and £28,444.

Postal orders issued numbered 70,580 worth £39,453, while £14,240 was paid out in respect of 25,870. The cash-on-delivery system was used by a larger number of persons, and 5,502 packets, valued at £17,442, were dealt with under it. 23,924 articles were undelivered and passed through the Returned Letter Office. The following table shows the quantities of the various kinds of mail matter received and despatched during the year as compared with the figures for the preceding two years :—

Received.

	1930	1929	1928
Letters	3,413,164	2,235,272	2,193,594
Post Cards	50,792	35,620	50,636
Newspapers	884,416	688,792	667,866
Bookpackets	680,132	514,254	483,496
Parcels	91,208	66,560	49,010
Registered articles	85,072	67,964	60,112

Despatched.

Letters	3,117,984	2,383,264	2,564,824
Post Cards	53,600	40,716	79,354
Newspapers	117,156	160,420	134,446
Bookpackets	227,064	272,558	241,124
Parcels	17,940	15,132	12,246
Registered articles	121,420	68,302	75,458

Aircraft.

The aerodrome under construction at Mpika, which will be used by Imperial Airways on their trans-African mail service, is now practically completed, and is, like the aerodrome at Broken Hill, equipped with a wireless station, refreshment and rest room, and accommodation for a resident mechanic and wireless operator.

Although a considerable number of machines have passed over the territory during the year there has not been any noticeable increase in air traffic, except in the mining area where a regular service has now been inaugurated between Ndola, Nkana, Nchanga, Luanshya, and Mufulira, which should be a boon to the mining companies and the general public.

During the year landing grounds have been completed and are fit for use at Isoka, Kanona, Mtuga, and Fort Jameson. There is also a landing ground at Mongu, but on account of the sandy nature of its surface, this can only be used by very light aircraft, and by them only in the dry season.

VI.—JUSTICE, POLICE, AND PRISONS.

Justice is administered by the High Court of Northern Rhodesia and by the Magistrates' and Native Commissioners' Courts subject to appeal to and review by the High Court. During the year the High Court dealt with 225 civil matters as against 122 in the preceding year and heard 19 actions and 2 appeals. Ten petitions in bankruptcy were presented. Sessions were held at Mazabuka, Lusaka, Broken Hill, and Ndola in May and October, and at Fort Jameson in November.

Forty-four criminal cases came before the Court exclusive of reviews of judgments in the lower Courts: these latter numbered 347 of which 263 were confirmed, 25 quashed, 19 altered, 11 sent back and subsequently approved; in the remaining 29 cases the accused were bound over.

The total number of cases dealt with by the Police during 1930 was 4,987; an increase of 98 on the figures for 1929. In addition there are many cases tried at stations where there are no police. There was an increase of 88 in crimes committed by Europeans. This was to be expected in view of the influx of Europeans to the mines and more adequate police supervision in that area.

The following figures indicate the number of more serious cases dealt with as compared with 1929. It will be seen that, as usual, larceny in all its forms and assault provided the bulk of them:—

Crime.	*Europeans.*	*Natives.*	*Total.* 1930.	1929.
Murder	—	19	19	29
Manslaughter	3	8	11	6
Rape	1	19	20	20
Indecent Assault	1	8	9	15
Incest	1	1	2	1
Housebreaking and Burglary	1	73	74	46
Larceny, all forms	13	661	674	645
Assault	76	231	307	337
Arson	1	12	13	10
Forgery and Uttering	4	31	35	14

Central prisons are established at Livingstone, Broken Hill, Fort Jameson, Kasama, and Mongu, and 993 persons were committed to the central prisons of the territory during the year. The daily average of prisoners was 321. Three natives were executed during the year. There were 4 deaths from natural causes amongst prisoners as compared with 10 for the year 1929. The average sick was 14·68 as compared with 16·85 for the year 1929.

VII.—PUBLIC WORKS.

The work of the Department has increased very considerably during the year, a heavy programme of Loan works, particularly building, being undertaken. The following is a brief summary of the major works carried out :—

Livingstone.—A new post office and a European school were completed, and six blocks of temporary wood and iron quarters designed to house unmarried officials.

Mazabuka.—Six new houses were erected, and an office for the Director of Native Education at the Jeanes School, while five further houses are now in the course of construction. All this work has been carried out Departmentally with native artisans.

Lusaka.—Eight houses, combined Government offices and a new Government native compound were completed or are in the course of erection by contract. Three further houses and a combined Government office are being built Departmentally.

Mongu.—A house for the District Officer, an Administration Office, a Court house and store are practically completed, the work being carried out Departmentally.

Mankoya.—The same buildings were completed Departmentally as at Mongu.

Broken Hill.—New combined offices were built by contract and the following new buildings are nearing completion : European school, bonded warehouse, and one house.

Chisamba.—The following buildings have been completed Departmentally : one combined Court and rest house, one police office and cells, one house, and a temporary post office.

Ndola.—The following buildings have been completed : six houses, Customs warehouse and office, Departmentally ; and eight houses, post office, combined Government offices and survey office, on contract.

A further eight houses, two hostels, and a European school are in the course of erection.

Luanshya.—The following buildings are in the course of erection on contract : six houses, police lines, post office, Court house and rest house.

Bwana Mkubwa.—A police camp with a house for an officer in charge, and offices have been erected Departmentally.

Mpika.—A wireless station is under construction. The maintenance of all Government buildings is carried out by native artisans under the supervision of either the District Administration or the Public Works Department.

Water Supplies are being provided at Broken Hill, Ndola, and Luanshya.

Under the Road Loan the reconstruction of the Victoria Falls Section of the Great North Road was completed, between the Falls and Livingstone.

On the Great North Road between Chisamba and Broken Hill a 33-mile deviation was practically completed, also a deviation 30 miles in length between Kapiri Mposhi and Serenje. The remainder of the route was improved and drained at several points.

On the Great East Road, several long sections were improved and the construction of the Central Deviation to the Luangwa River Bridge site was well advanced. The Mumbwa-Kasempa Loop Road was further improved. Several permanent bridges were erected on arterial roads.

Extensive surveys were commenced for roads to serve the western area of the territory between Mumbwa and Mongu, Kasempa and Balovale, Solwezi and Mwinilunga.

VIII.—PUBLIC HEALTH.

The Government maintains European hospitals at Livingstone, Lusaka, Broken Hill, Fort Jameson, Kasama, and Mongu, together with native hospitals at these stations and also at Abercorn, Choma, Mazabuka, Solwezi, Ndola, Fort Rosebery, and Balovale.

In addition to the above, many Mission doctors, hospitals, and dispensaries receive annual subsidies from the Government for medical work in native areas.

During the year, 1,151 Europeans and 7,272 natives were admitted to Government hospitals, and there were 29 European and 471 native deaths respectively in these hospitals. 1,805 European and 57,048 native patients were treated as out-patients at Government hospitals.

Vital Statistics.	1927	1928	1929	1930
Number of deaths	72	97	93	163
Death-rate per 1,000	9·89	12·87	9·32	13·58
Deaths of infants under 1 year of age...	18	15	21	28
Death-rate per 1,000 of births	125	76·92	99·52	102·56

Births :—

136 males.
137 females

273 total

The crude birth-rate was 22·75 per 1,000 as compared with 21·14 last year.

The native population is now 1,331,231 which shows an increase of 32,580 over the previous year.

The average birth-rate throughout the territory was 60 per thousand, and the infantile mortality percentage of deaths to births was 20 per cent., the lowest figure so far estimated.

The European population shows an increase of 2,019 over the previous year, while the death-rate is 13·52 as compared with 9·32 in 1929 and 12·87 in 1928.

The increase of the population is due mainly to the mining activities in the north. A large European and native population has been attracted to the copper belt where development and construction are proceeding rapidly, bringing about conditions which are favourable to an increased incidence of malaria and blackwater and other diseases. In common with other countries there has been considerable prevalence in the territory of cerebro-spinal meningitis throughout the year.

The distribution of the cases has been characteristic of the disease, a few cases occurring at widely separated centres throughout the territory but especially in the mining area but nowhere assuming epidemic proportions. Enteric has also been prevalent throughout the mining area and is one of the factors in the increased death-rate. Diphtheria figures as a cause of death for the first time in the history of the territory.

The death-rate therefore gives no occasion for alarm, and it can be confidently anticipated it will decrease as conditions become stabilized, and the sanitation schemes now in process of construction are functioning. Though the malarial incidence during the year has increased, provided the usual precautions are taken against infection by mosquitoes (the use of a mosquito net, mosquito boots, etc.), and a daily dose of quinine is taken, there is no part of Northern Rhodesia in which this disease need alarm the intending settler or his family.

Malaria and Blackwater.—The following table gives the number of persons admitted to Government hospitals suffering from malaria and blackwater during the last five years :—

	European Population.	*Malarial Cases.*	*Deaths.*	*Blackwater fever cases.*	*Deaths.*
1926 ...	5,581	262	1	21	7
1927 ...	7,275	272	6	20	5
1928 ...	7,536	304	2	17	5
1929 ...	9,981	330	1	5	1
1930 ...	12,000	383	5	9	3

Smallpox is well under control throughout the territory, and though a few isolated cases occur from time to time the only epidemic of any importance of this disease during the year was confined to the Kasama district, and to Fort Jameson district in the neighbourhood of the Portugese border.

Sleeping Sickness.—Conditions in respect of sleeping sickness remain the same as in the last Report. Two European cases and four native cases are reported to have contracted sleeping sickness in the Luangwa Valley and another native case is reported but the place of infection has not yet been traced.

Dr. Gilkes made a tour of inspection in the sleeping sickness area adjacent to the Great East Road. The incidence in the villages remains low and there is no reason to anticipate it will ever assume epidemic form.

Native Labour.—The Health and Mortality Returns submitted by the various mining companies show that a labour force averaging 30.138 was employed on the various mines throughout the territory with 637 deaths, giving a death-rate of 21·13 per thousand. Of these, 306 or 11·3 per thousand were due to the various forms of pneumonia. The death-rate for fatal and serious accidents shows an increase over last year of ·47 and 3·03 respectively, but compares favourably with Southern Rhodesia and the Union of South Africa.

Though the death-rate from pneumonia may seem high it must be remembered that this disease heads the list of causes of death in ordinary village life. The various mining companies are arranging for an investigation of pneumonia by the South African Institute of Medical Research during the coming year. Dr. Alexander, late Director of Medical and Sanitary Services, Nigeria, visited Northern Rhodesia during the year to advise on health matters, and the organization of a Sanitation Department, and a Deputy Director of Sanitary Services and other Health Officers will be appointed during the coming year.

Dr. Alexander also drew up a scheme for a Medical School for the training of an African subordinate Medical Service. This school will be erected at no distant date.

Sir Malcolm Watson of the Ross Institute visited the country on behalf of some of the mining companies in connexion with the anti-malarial measures which are being carried out by these companies.

Dr. Cochrane of the British Empire Leprosy Relief Association which contributes so generously to the various leper treatment centres in this country, also visited Northern Rhodesia.

IX.—EDUCATION.

European Education.

There are five schools providing secondary education up to Standard VII at Livingstone, Choma, Mazabuka, Lusaka, and Broken Hill. Boarding establishments are attached to the schools at Choma and Mazabuka with accommodation for 36 girls and 20 boys respectively.

Ten schools providing primary education up to Standard V exist at Lubombo, Silver Rest, Chilongolo, Fort Jameson, Bwana Mkubwa, Ndola, Luanshya, Nkana, Mufulira, and Nchanga.

Forty-nine teachers were employed in these schools, all of which are controlled and under Government management, with an enrolment at the end of 1930 of 774, an increase of 210 over the figure for 1929 and the largest so far recorded.

There are also two controlled schools under private management at Broken Hill and Fort Jameson with a combined enrolment of 105.

Probably 60 more children were being educated in small uncontrolled schools and at least 150 more outside the territory.

New schools were completed at Livingstone and at Ndola during the year, which has been one of steady progress.

Further attention was paid to the recommendations of the European Education Commission of 1929, and it is anticipated that certain of these will be embodied in an Ordinance for the regulation of European education, shortly to be introduced.

Native Education.

The education of natives in Northern Rhodesia is mostly in the hands of the Missionary Societies, but Government gives grants-in-aid and exercises such supervision as is possible through the Department of Native Education. Seventeen Missionary Societies are established in the territory. Among the larger and more educationally advanced Societies are the Livingstonia Mission, the London Missionary Society, the Methodist Mission, the White Fathers, and the Paris Evangelical Mission.

There is a general desire for education among the native peoples, sometimes adversely affected by a lack of steadfastness on the part of pupils, who are apt to consider that their education is complete when it has barely commenced. The lack of sustained interest may be expected to diminish if not to disappear when well-trained teachers become available.

The proportion of natives in the territory who can read and write is now high, and grows annually. The large numbers of natives in employment are continually learning something useful, and the number of natives who can be said to be " skilled " grows steadily.

The number of native school children of school age in Northern Rhodesia is estimated at 265,000. About 20,000 of these attend the Mission primary schools and some 58,000 additional children receive a certain amount of secular instruction in village sub-schools which exist primarily for religious purposes. Most of these schools and sub-schools are unsatisfactorily staffed and equipped but improvement will gradually become more marked as better trained teachers are available.

The nine Mission teacher training schools had an enrolment of 230 pupils during the year. A Government examination for Teachers Certificate was held in May and 83 candidates were successful.

Some 450 pupils attend seventeen Mission boarding schools for girls. One of the most successful of these schools is run by Miss Mabel Shaw at Mbereshi Mission of the London Missionary Society and has an enrolment of 120 and a class for the training of women teachers on Jeanes lines.

At Lubwa Teacher Training School of the Livingstonia Mission a Pathfinder troop has been successfully formed.

At Mbereshi, the technical school for the training of carpenters and builders had 12 apprentices in training. In view of the impending establishment of a Government Trades School on the lines of Mr. G. E. Hunt's recommendations Missions were not encouraged to form new Industrial Departments.

The Staff of the Department of Native Education was strengthened by the addition of three Superintendents. It now consists of a Director, Assistant Director, and, including the staff of the Barotse National School, ten superintendents and masters.

The Headquarters of the Department moved to the site of the Jeanes School at Mazabuka in July.

The Government Jeanes School had 21 teachers in training, recruited from most of the leading Missionary Societies. The Government Agricultural School had an enrolment of 14 natives in training as Agricultural Assistants. Progress was made with the building of the School at Mazabuka but the main school building remains to be completed.

The Barotse National School had an average enrolment of 108 pupils in the Central School and 27 apprentices learning carpentry. One hundred and seven pupils attended the three out-schools run by the school. The school is financed from the Barotse Trust Fund and supervised by the Department.

In October, a start was made with the building of the Native Elementary School at Ndola. It will be ready for occupation by the end of April next year.

A school scheme for the territory has been drawn up for submission to the Secretary of State. It provides for a considerable increase in expenditure both on Government schools and on grants-in-aid to Missions.

It is satisfactory to report that the mining companies have taken steps to encourage education in mine-locations by appointing Native Welfare Officers and opening schools for the families of their employees.

The following figures show the progress of expenditure from Government funds on native education :—

	£
1924–25	348
1925–26	3,994
1929–30	12,300
1930–31	15,300 (Estimated).

This expenditure does not include contributions from the Beit Railway Trust (£2,000 recurrent and £2,300 capital), and from the Carnegie Corporation (£770), and the Barotse Fund (£7,700). The estimated inclusive expenditure for 1931–32 is £50,300, of which £20,300 is for capital expenditure on buildings and £30,000 for recurrent expenditure. The amount spent on native education from Colonial Revenue during 1930–31 per head of native population is estimated to be 2·8 pence.

X.—LANDS AND SURVEYS.

During 1930, one hundred and twenty-nine enquiries regarding land settlement in Northern Rhodesia have been received, from residents in the territory 74, Southern Rhodesia 7, Union of South Africa 42, Burma 1, Argentine 1, Australia 1, New Zealand 1, United States of America 1, and Ceylon 1. In addition to the above, one hundred and fifty enquiries were dealt with for surveyed plots at sidings and townships. 32,065 acres were alienated under permits of occupation as new holdings, the total purchase price being £8,472 18*s.* 2*d.* Sixty-five titles to farms were issued during the year in respect of 105,491 acres; of these forty titles were in respect of railway farms amounting to 31,349 acres and three were in respect of Nkana Areas (Bwana Mkubwa Copper Mining Company) amounting to 19,202 acres. Eight leases in respect of farms and grazing areas totalled 17,882 acres. Thirty-three titles were issued for thirty-four township plots. Twenty-one leases were issued for twenty-one township plots with option to purchase, the total purchase price being £4,640, two-thirds of which has been paid for issue of the lease. Seventy-two leases for seventy-five township plots for a period of 99 years were issued, the total stand premium in respect thereof being £16,027. Eight leases were issued in respect of suburban lands; two leases for areas within townships for sports purposes, three leases for areas within townships for public services; six leases to mining companies in respect of farm grants, way-leaves, mining base camps, etc., totalling 13,050 acres; five leases in respect of Mission holdings totalling 1,061 acres; six leases in respect of native labour recruiting depots, and six leases totalling 10,873 acres in respect of farm and grazing areas.

The amount received in respect of timber royalty was £3,952 8*s.* 4*d.*

A few farms in various parts of the territory were surveyed during the year including several in the British South Africa Company's areas in the vicinity of Abercorn. The survey was commenced of the forest areas on the Machili at present being exploited by the Zambezi Saw Mills and some 40 miles of theodolite traverse completed.

The appointment of a Town Planning Engineer has naturally led to a great increase in the work done in connexion with town development, with consequent curtailment of activities in other directions. A large amount of work has been carried out at Ndola and Luanshya and a start has been made at Livingstone and Broken Hill. In addition extensive surveys were carried out in connexion with the site of the new capital proposed by a commission of experts appointed to investigate the matter.

The aerial photography of the 63,000 square miles and the six townships to be mapped from the air has been completed and the first set of maps should shortly be available.

The International Boundary Commission is still at work on the Anglo-Belgian Boundary. A further commission has commenced work in the Anglo-Portuguese Boundary between Katima Molilo on the Zambezi River and Andara.

XI.—LABOUR.

(*a*) Within the Territory.

The native labour position in 1930 was very satisfactory; the demand for labour was greater than in any previous year and it was met almost entirely by Northern Rhodesian labourers. The average number of natives in employment during the year was approximately 78,650.

The mines maintained a labour strength in the neighbourhood of 30,000, and labour conditions in that industry were generally extremely good. The problem of recruitment was much simplified by the organization of the Native Labour Association, of which nearly all the large mines are members. This Association is in a position adequately to control recruiting, transport, and repatriation of mine labourers, and has hitherto been entirely successful. It has also obviated the necessity for competitive recruiting by individual mining companies, which was unsatisfactory in many ways.

Underground work on mines was undertaken on a large scale for the first time. There was some difficulty in recruiting natives for this novel but remunerative work, but the difficulty was overcome by importing a number of trained labourers (many of them natives of this country) from Southern Rhodesia. Of the total number of natives working on mines, about 30 per cent. were recruited and the remainder voluntary labourers. The fact that the average period of service of voluntary labourers exceeded the period of the contract of recruited labourers is good evidence that labour conditions on mines are satisfactory.

Mine managers report that native labour is becoming more efficient, and few of the men can now be classed as "raw labourers."

Discipline on the mines was satisfactory and the relations between master and servant generally very good.

Farm labour though not quite so plentiful appears to have been rather more stable than usual, which is rather surprising in view of the higher wages and more attractive conditions in the mining area.

The numbers of men employed in other forms of labour show substantial increases, notably under the headings, "Domestic," "Building," and "Railways."

The Native Registration Ordinance came into force at 1st September, 1930, and natives generally are keen to obtain identity certificates and to have them endorsed by their employers; doubtless realizing that the identity certificate gives them a certain protection which was formerly lacking.

It appears that an average of 35 to 45 per cent. of the able-bodied men leave their tribal areas at some time during each year to find work, and that the average period of absence is from seven to ten months (excluding those natives who enter into short contracts to work within their own districts).

Enquiries have been made as to whether this "exodus to work" can be said to be harmful to the well-being of the family or of the tribe.

With regard to family life, it is true that a certain "breaking-up" inevitably occurs. If the labourer goes to work by himself his wife and children remain at the village, if he takes his family with him (or sends for them afterwards) there is a "breaking-up" of the domestic circle. It is true that the domestic life of the native village is changing and young men are apt to be contemptuous of the pursuits of the village. It is also probable that sexual promiscuity is increasing, though the incidence of diseases consequent on such promiscuity appears to be decreasing.

The birth-rate is probably affected in the case of polygamists, but this has not been proved to be the case with regard to monogamists. The fact that the age of marriage tends to be later than formerly is eugenically advantageous.

At the same time it should be remembered, that the physique of the men is undoubtedly improving, that the infantile mortality-rate is decreasing, and that the birth-rate at labour centres (of which no statistics are available) must compensate to some extent for any falling off in tribal areas.

The proper performance of communal services normally undertaken by the village as a whole sometimes becomes difficult when the proportion of male absentees is high: sanitation measures, clearing, and the repair of dwelling-houses will be deferred or inadequately carried out.

Tribal control might be expected to suffer, but the introduction of indirect rule has been timely and salutary.

Although in some districts non-native buyers have not been able to purchase all the foodstuffs they required, there is no evidence that the absence of men at work has made food supplies inadequate for the needs of the native population.

The number of natives living with their families outside tribal areas is increasing but is not yet considerable. The man who brings his family to his place of employment will, however, stay away from his tribal area longer than the bachelor or "grass-widower" and there may be a gradual growth of a class of "detribalized" natives.

Such natives would be living in conditions more favourable to health than are usually found in native villages, they will often have educational facilities at their doors, and their opportunities for economic advancement would of course be considerable.

Provided that tribal areas are not unduly depleted, the growth of a class of progressive detribalized labourers will be advantageous. The majority of such natives would eventually return to their homes, where they would probably find it difficult to fit themselves into the framework of forgotten tribal life, but would take with them progressive ideas acquired in contact with more advanced communities.

(*b*) **Without the Territory.**

As labour conditions in this territory improve, the habit of "going abroad to work" is gradually losing its hold. Further, owing to financial depression in neighbouring countries, the demand for labour outside the territory has decreased.

The numbers of men recruited for work in Southern Rhodesia and the Congo were respectively 3,300 and 1,192, as compared with 4,599 and 4,110 during 1929. Statistics of voluntary labourers leaving the territory in search of work show a slight decrease but there is reason to believe that the decrease was really considerable, and during the latter part of the year large numbers of natives who had been working in Southern Rhodesia and the Belgian Congo returned to the territory.

XII.—MISCELLANEOUS.

During the year under review, two Sessions of the Legislative Council were held in March and November respectively, and forty-two Ordinances in all were passed.

Notable amongst the Ordinances passed were the Revised Edition of the Laws Ordinance, the Public Health Ordinance, the Workmen's (Non-Native) Compensation Ordinance, the Medical Practitioners and Dentists Ordinance, the Veterinary Surgeons Ordinance, the Police Magistrates Ordinance, the Trades Licensing Ordinance, the Petroleum Ordinance, the Native Beer Ordinance, the Cattle Cleansing Ordinance, and the Immigrants Regulation (Amendment) Ordinance.

This latter Ordinance effects an important change in the immigration law of the territory. Under the old law of 1915 no person born in Southern Rhodesia or in Bechuanaland could be regarded as a prohibited immigrant; but as Southern Rhodesia has passed an act removing the reciprocal provisions with this territory and Bechuanaland, the restriction contained in the 1915 enactment has been abolished.

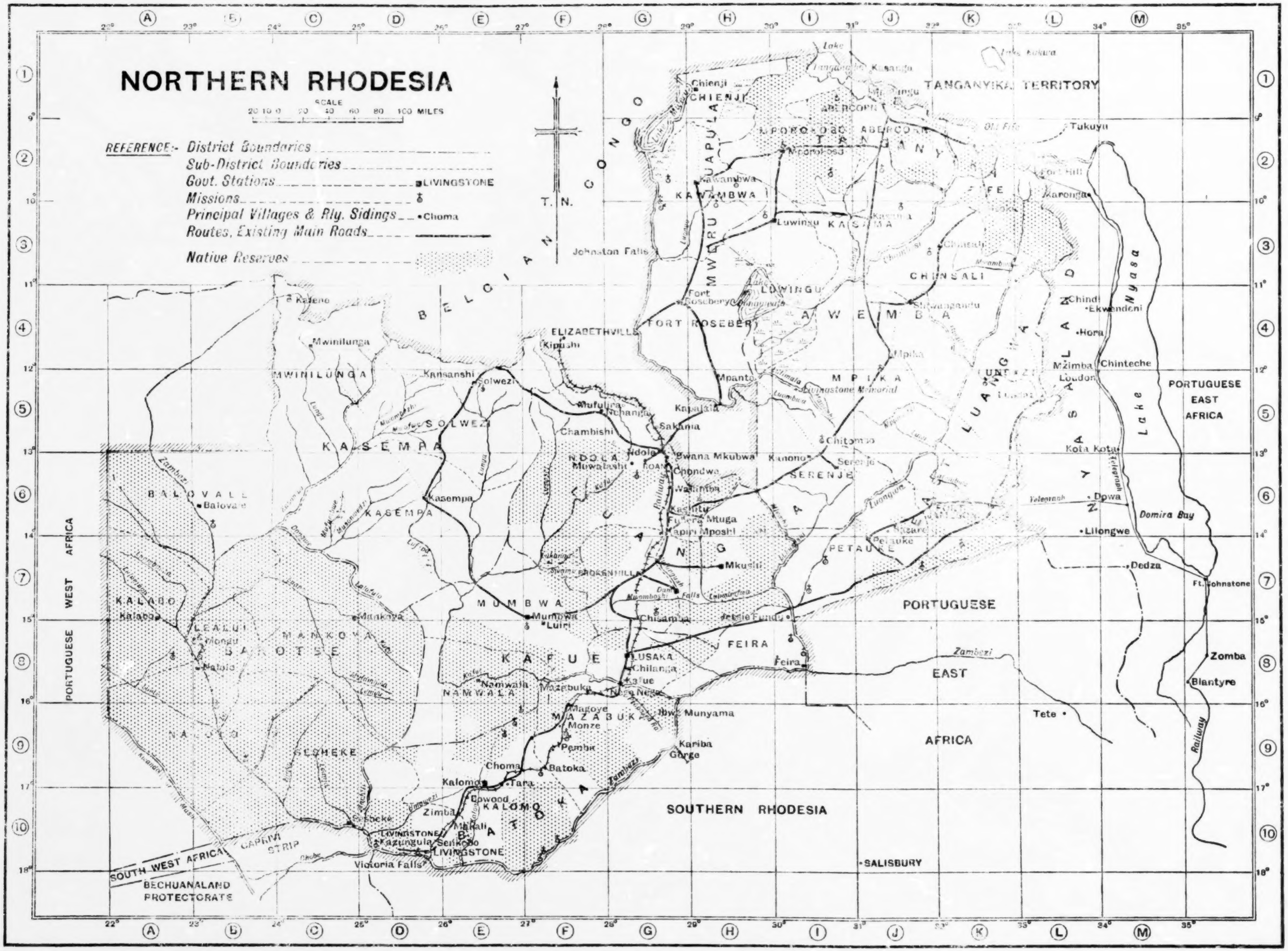
Two Customs Agreements were entered into by the Government of this territory, with the Government of the Union of South Africa and with the Government of Southern Rhodesia respectively. The first of these, that with the Union of South Africa, superseded the Customs Agreement of 1924, and is validated by Ordinance No. 1 of 1930; similarly the Agreement with Southern Rhodesia is legalized by Ordinance No. 2 of 1930.

The most important measure of the year, Ordinance No. 42 of 1930, provides a Penal Code for the territory. The introduction of a Code of this nature has been under consideration for some years. In 1926, a Conference of law officers was held at Nairobi in East Africa and a Code which had been prepared by legal experts in England was examined and criticized. This Code, as subsequently amended, was adopted with minor variations by all the East African Dependencies. It is taken to a great extent from Nigeria where a code founded on English law was introduced so far back as 1916.

Among other enactments passed were those dealing with the Affirmation of the Abolition of Slavery, Employment of Natives, Lunacy, Marriage, Nursing Sisters (Retiring Allowances), Preservation of Archaeological Objects, and Vagrancy.

D. M. KENNEDY,

Chief Secretary.



NORTHERN RHODESIA

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NORTHERN RHODESIA,
1931

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CHAPTER I.

GEOGRAPHY, CLIMATE, AND HISTORY.

Geography,

The territory known as the Protectorate of Northern Rhodesia lies between longitudes 22° E. and 33° 33′ E. and between latitudes 8° 15′ S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South-West Africa, comprising in all an area that is computed to be about 288,400 square miles. The River Zambezi forms the greater part of the southern boundary; its two main northern tributaries are the Rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

History.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown territory. The curtain of obscurity lifts for a moment when we read the diaries of the Portuguese Governor of Sena, Dr. Lacerda, who led an expedition in 1798 from Tete into Kasembe's country, close to the eastern shores of Lake Mweru. He was followed in the early 19th century by two Portuguese traders, Baptista and José, who brought back stories of the great interior kingdom of the Balunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the 16th to the 19th century. Very few historical facts are known about it, but the name of Muati Yamvo, the dynastic title of the Paramount Chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any very great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and in 1855 discovered the Victoria Falls, that the civilized world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls were Serpa Pinto, Cameron, Selous, and Arnot.

From the very early days when the hordes of migratory Bantu swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasions from stronger tribes on its borders, so much so, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambezi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time statistics are available of seventy different tribes resident in the territory, of which the most important are the Awemba (110,659), Achewa (75,108), Angoni (50,632), Awisa (41,706) in the Eastern Districts; the Barotse (55,123), Batonga (95,445), Balenje (39,580), Balovale (58,853), Balaonde (33,642), Baila (21,632) in the Western Districts; and the Asenga (64,546) and Alunda (66,445) members of which are resident in both Eastern and Western Districts. There are said to be 50 distinct native dialects in use, of which Chiwemba and Chinyanja have been adopted for educational purposes in the Eastern Districts and Chitonga (closely allied to Chila) and Sikololo in the Western. In addition to these, Chinyanja is in use as the official language of the police, and is probably the language most generally spoken by Europeans; it is, in reality, a Nyasaland language—the word means "Language of the Lake"—but it is also spoken to some extent round Fort Jameson.

The chief invaders of the early part of the 19th century were the Arabs from the north; the Angoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the territory; and the Makalolo, an offshoot of the Basuto family, who, in the beginning of the 19th century, fought their way from the south through Bechuanaland and across the Zambezi under the noted Chief Sebitoani; they conquered the Batoka, the Basubia, and the Barotse and founded a kingdom which was distinguished by a comparatively high degree of social organization.

The duration of the Makalolo kingdom was short. Soon after the death of Sebitoani, the Barotse rebelled and massacred the Makalolo to a man. The influence of their occupation is still to be seen in the Sikololo language, which is largely spoken amongst the tribes near the Zambezi. The Barotse under Lewanika enlarged their kingdom by conquering one or two of the surrounding tribes, such as the Bankoya and the Balovale. Beyond these limits their authority was both nebulous and ephemeral.

In the year 1891 Lewanika was informed that the protection of Her Majesty's Government had been extended to his country as he had requested it should be, and on 17th October, 1900, the Barotse Concession was signed by him and his Chiefs and representatives of the Chartered Company. The concession was in due course confirmed by the Secretary of State for the Colonies and under its terms the Company acquired certain trading and mineral rights over the whole of Lewanika's dominion, while the Paramount Chief was to receive, among other advantages, an annual subsidy of £850.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lake Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in 1893, the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave raiders were occasionally encountered on the north-east boundary, and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavery. This social serfdom was brought to an end by the edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Previous to 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland—North-Western Rhodesia Order in Council placed the administration of the western portion of the country by the Company on a firm basis; and this was closely followed by the North-Eastern Rhodesia Order in Council of 1900 with similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924, when, in terms of a settlement arrived at between the Crown and the Company, the administration of the territory was assumed by the Crown, and the first Governor was appointed on 1st April, 1924.

Climate.

There are considerable climatic differences between various parts of the country. The Zambezi, the Luangwa, and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November before the rains break, when the mean maximum is 97° in the Zambezi valley stations and 85° at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90.3° with a mean minimum of 64.5° while the corresponding figures for the four months of the cold season (May to August) are 78.7° and 46.6°.

The following table gives representative temperatures for the territory experienced during 1931 :

Place.	*Highest mean Max. °F.*	*Month.*	*Lowest mean Min. °F.*	*Month.*	*Absolute Max. °F.*	*Month.*	*Absolute Min. °F.*	*Month.*
Livingstone, 3,000 ft. ...	96·5	Oct.	46·0	July	104	Oct.	40	July–Aug.
Broken Hill, 3,753 ft. ...	88·8	Oct.	44·0	June	97	Nov.	42	June
Abercorn 5,110 ft. ...	83·0	Oct.	50·5	July	90	Nov.	45	June

Highest Temperature ... 112° Barotse National School.
Lowest ,, ... 21° Secheke.

The rainy season usually commences in November and lasts until April, after which month rain is rarely experienced and then in negligible quantities.

In the past year the rainfall throughout the southern portion of the territory was slightly above normal, starting in November and carrying on fairly regularly until April. Along the Congo Border the rainfall was exceptionally heavy and in consequence the Zambezi flood was unusually high. The winter was again cold and there occurred a very sudden drop of temperature early in September.

CHAPTER II.

GOVERNMENT.

Central Administration.

The office of Governor was created by an Order of His Majesty in Council dated 20th February, 1924, and the first Governor assumed his duties on 1st April, 1924.

The Governor is advised by an Executive Council which consists of five members; the Chief Secretary, the Attorney-General, the Treasurer, the Secretary for Native Affairs, and the Director of Medical and Sanitary Services. Provision is also made for the inclusion of extraordinary members on special occasions.

The Order in Council provided that a Legislative Council should be constituted in accordance with the terms of the Northern Rhodesia (Legislative Council) Order in Council, dated 20th February, 1924, to consist of the Governor as President, the members of Executive Council *ex officio*, nominated official members not exceeding four in number, and five elected unofficial members.

In 1929 the number of elected unofficial members was increased to seven consequent upon the very considerable increase in the European population.

Provincial Administration.

For administrative purposes the territory is divided into nine provinces, each of which is under a Provincial Commissioner responsible for his province to the Governor. The provinces are divided into districts under the charge of District Officers responsible to the Provincial Commissioners.

Native Administration.

In 1929 the Native Authority Ordinance was passed and was subsequently applied as from 1st April, 1930, to all the territory with the exception of Barotseland. Barotseland was exempted from the application of the Ordinance on account of the rights which the Paramount Chief and his Khotla (Judicial and Deliberative Assembly) preserved under the concessions which he granted to the Chartered Company.

The Ordinance empowers the Governor to appoint in specified areas Native Authorities, consisting of one or more chiefs or other natives, to be responsible for the performance of the obligations imposed upon them by the Ordinance and for the maintenance of order and good government in the area. The Governor also has the power to suspend or dismiss members of such Native Authorities. The duties of the Authorities are clearly defined in the Ordinance which confers upon them power to make rules for certain objects. It is the duty of all natives to assist such Authorities in the work of administration.

This system has, during the short time it has been in operation, worked satisfactorily, and there is no reason to doubt its ultimate success.

Native Treasuries have not yet been established, but steps are being taken to educate the Native Authorities in the matter of finance and the administration of public funds.

CHAPTER III.

POPULATION.

The first census of the territory took place on 7th May, 1911, prior to the amalgamation in the same year of North-Eastern and North-Western Rhodesia under the title Northern Rhodesia; the second was held on 3rd May, 1921, and the third on 5th May, 1931.

The following table shows the increase of population since 1911 (the figures for European population are census figures whilst those for native population are taken from the reports of the Secretary for Native Affairs):

Year.	*Europeans.*	*Increase per cent.*	*Natives.*	*Increase per cent.*	*Proportion of Africans to one European*
1911	1,497		821,063		548·47
1921	3,634	143	979,704	19	269·59
1931	13,846	381	1,331,229	36	96·14

The increase in the number of Europeans between 1921 and 1931 is due to the influx which took place during the development of the copper mines in the Ndola District between 1927 and 1931. The mines had nearly completed construction towards the end of the year and a considerable number of Europeans left the territory as a consequence.

The numbers of Asiatics and non-native coloured persons in the territory at the 1931 census amounted to 176 and 425 respectively.

The native population is now 1,372,235 which shows an increase of 41,004 or 3·1 per cent. over the previous year, and its average density throughout the territory is 4·8 to the square mile.

The average native birth-rate throughout the territory was 59·6 per thousand, and the percentage of infantile mortality was 18·9.

The European population at 13,846 shows an increase of 1,846 or 15·4 per cent. over the previous year, while the death-rate is 15·16 as compared with 13·58 in 1930 and 9·32 in 1929.

These figures are based on the official census taken in May. Since that date, however, a number of the copper mines have been shut down, and considerable retrenchment has been effected on those still in operation. The unemployment consequent on these conditions has adversely affected both the morbidity and mortality rates, though unquestionably this is only a temporary phase. Under the circumstances the increase in the death-rate should cause no alarm.

Vital Statistics.

	1927.	1928.	1929.	1930.	1931.
Number of deaths ...	72	97	93	163	210
Death-rate per 1,000 ...	9·89	12·87	9·32	13·58	15·16
Deaths of infants under 1 year of age.	18	15	21	28	28
Death-rate per 1,000 of births.	125	76·92	99·52	102·56	84·08

Births :—
167 males.
166 females.
333 total.

The crude birth-rate was 24·05 per 1,000 as compared with 22·75 last year.

Immigration.

Immigrants into Northern Rhodesia in 1931 exclusive of natives, numbered 1,702 of whom 1,477 were British subjects. Of the 225 foreign subjects, 78 were citizens of the United States of America. The following comparative figures of immigrations, exclusive of visitors, are indicative of the progress of the territory :—

1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.
438	474	756	1,038	1,066	1,861	3,651	1,702

Ninety-nine persons were deported, fourteen being criminals and the remainder either indigent or illiterate. No figures of emigrants are available.

One hundred and fifty-seven destitute persons were repatriated at Government expense to neighbouring territories and overseas.

CHAPTER IV.

HEALTH.

The Government maintains European hospitals at Livingstone, Lusaka, Broken Hill, Bwana Mkubwa, Fort Jameson, Kasama, and Mongu, together with native hospitals at these stations and also at Abercorn, Choma, Mazabuka, Solwezi, Fort Rosebery, and Balovale.

In addition to the above, many Mission doctors, hospitals and dispensaries receive annual subsidies from the Government for medical work in native areas.

During the year, 1,525 Europeans and 8,603 natives were admitted to Government hospitals, and there were 44 European and 436 native deaths in these hospitals. There were 2,538 European and 131,247 native out-patient attendances during the year at Government hospitals and dispensaries.

The different forms of pneumonia still head the list of causes of death in the mining areas, though, of course, these diseases are not confined to the mines.

Malaria and Blackwater—The following table gives the number of persons admitted to Government hospitals suffering from malaria and blackwater during the last five years :—

Year.	*European Population.*	*Malarial Cases.*	*Deaths.*	*Blackwater fever cases.*	*Deaths.*
1927 ...	7,275	272	6	20	5
1928 ...	7,536	304	2	17	5
1929 ...	9,981	330	1	5	1
1930 ...	12,000	383	5	9	3
1931 ...	13,846	500	3	15	5

The malarial incidence during the year shows an increase, but contributing causes have undoubtedly been the large amount of unemployment in the territory during the latter part of the year. This has resulted in a lowering of the standard of living for a large section of the population in the mining areas, with a corresponding increased liability to disease.

Provided the usual precautions are taken against infection by mosquitoes (the use of a mosquito net, mosquito boots, etc.), and a daily dose of quinine is taken, there is no part of Northern Rhodesia in which this disease need alarm the intending settler or his family.

Smallpox is well under control throughout the territory, though a few isolated cases occur from time to time.

Sleeping Sickness.—The position presents no change and may be regarded as satisfactory.

Cerebro-spinal Meningitis.—Two European and 17 native cases were notified and treated in Government hospitals. They appeared as sporadic cases and no epidemic occurred.

Rabies.—The position as regards rabies cannot be regarded as satisfactory. The number of dogs in certain portions of the country is very large, and as they are practically uncontrolled they form a very real danger.

Native Labour.—The Health and Mortality Returns submitted by the various mining companies show that a labour force averaging 23,357 was employed on the various mines and concessions throughout the territory ; there were 449 deaths in mines, giving a death-rate of 24·6 per thousand.

During the year Dr. Kauntze, Deputy Director of Laboratory Services, Kenya Colony, visited this territory and drew up a comprehensive scheme for the establishment of a Laboratory Service. This will prove of the utmost value when the financial position permits of it being carried out.

The sanitation branch of the Health Department was organized during the year, and at present consists of a Deputy Director of Sanitary Services, three Health Officers, and three Health Inspectors. A great amount of work has already been accomplished in towns on the railway line, particularly in the mining area, and it is confidently expected that a marked improvement in the health of these communities will be noticeable in the very near future.

At Livingstone, a new Nurses' Home was built and occupied, and improvements effected at the European hospital by the provision of an operation and X-ray block. The foundations of the new native hospital were also laid, and this, when completed, will materially augment the medical facilities of the town.

The equipment of other hospitals, both European and native, throughout the territory, was also improved.

CHAPTER V.

HOUSING.

European Government Housing.

During the period under review considerable progress was made with the Government Housing Scheme. In Ndola nine new houses, two hospitals, and constables' quarters, etc., were completed, while fourteen other houses were nearing completion. In Livingstone twelve houses, seven bachelors' quarters, and a Nursing Sisters' Home were completed and occupied, while in many of the other large centres, notably Lusaka and Luanshya, considerable progress was made. In all cases the type of house now being constructed represents a distinct advance on anything yet attempted in the territory, and compares very favourably with that of other Colonies.

European non-Government Housing.

The situation varied very much throughout the year. In the earlier months during the "boom" period, the demand for housing, particularly in the north, was heavy. The situation in Ndola, where the rate of expansion had been too fast to enable the local authorities to exercise control, was deplorable. Most unsatisfactory types of more or less temporary quarters, defective in lighting, ventilation, and sanitary accommodation, and, in the majority of instances, definitely over-crowded, had sprung up everywhere, and, in certain parts of the town where speculative flats had been erected, slum areas were beginning to establish themselves. Towards the end of the year, and as a result of the fall in population following the closure of some of the mines, the situation showed a marked change and conditions of over-crowding were to a great extent mitigated, while numerous insanitary premises were evacuated and demolished.

The various mining companies made great progress with their housing schemes, most of which were up to schedule at the end of the year. Their European employees are now in a particularly happy position regarding housing and sanitary accommodation. Generally speaking, the same remarks apply to the housing of railway employees in the larger centres, though much remains to be done at some of the smaller railway centres on the line.

By far the worst conditions of European housing were established by contractors, particularly in the copper belt area. The houses which they provide are usually of a temporary nature with a defective sanitary accommodation, but the majority will disappear when contracts are completed.

The control of development in housing has been a matter of considerable concern to Government, and legislation in the nature of building regulations has already been provided and will shortly be applied to the larger centres. Local Councils and Municipalities exercise a certain amount of control and, with the assistance of the legislation referred to, will ensure that development proceeds on the right lines. In the larger centres inspection work is also carried out by the Health Department which, by using the powers conferred upon it by the Public Health Ordinance, has done much to improve the situation. Numerous insanitary premises have been demolished and improvements effected in the more permanent types of buildings.

Native Housing.

During the year housing schemes for Government African employees were completed in certain of the larger towns, notably Ndola and Luanshya. Servants' quarters of a very satisfactory type were also provided for the officials' houses.

The mining companies have made great progress with housing in compounds. Generally speaking, the African employees on the mines are now extremely well accommodated. Apart from this, however, little has been done and the housing for natives in compounds in the larger towns remains mostly defective and insanitary, though certain improvements have been effected in the majority of these compounds during the year.

The local authorities in some of the larger towns, notably Livingstone, Ndola, and Broken Hill, are now proceeding with schemes to construct new permanent native compounds on sites chosen by the town planning authorities. These compounds will be provided with sanitary accommodation of a more modern type and work on them will, it is hoped, be proceeded with in 1932.

The railway authorities have done much to improve their compounds in the larger areas, but the general economic depression during the latter part of the year prevented any major schemes being carried out.

The policy of the Government is to improve progressively native housing conditions, particularly in urban areas, and plans of compounds showing layouts, types of housing proposed, and sanitary accommodation have to be submitted to Government for approval. In rural areas the situation remains very much the same and the African is still more or less restricted to the round hut, though there is already evidence that the more educated Africans are beginning to appreciate the advantages of a better and more sanitary type of house.

CHAPTER VI.

PRODUCTION.

Land and Agriculture.

Of the total approximate area of the territory of 184,576,000 acres, the North Charterland Exploration Company holds a concession over 6,400,040 acres, subject to the assignment of native reserves amounting to 2,148,440 acres. The British South Africa Company owns, subject to the assignment of native reserves of 1,094,475 acres, three freehold areas in the Tanganyika Province, comprising 2,758,400 acres. 2,786,352 acres have been otherwise alienated for purposes of European settlement, not including 84,420 acres of land leased without option to purchase. The total area of alienated land is, therefore, 12,029,212 acres, about 6½ per cent. of the whole territory. Most of the alienated land is used for grazing, some of it is cultivated, but a large area is unsuitable for either grazing or cultivation owing to the absence of water. The following table gives a comparative idea of the acreage of the various staple crops under cultivation in the seven previous seasons.

Season.	*Maize.* *acres.*	*Tobacco.* *acres.*	*Wheat.* *acres.*	*Total under cultivation.* *acres.*
1923–24	42,377	2,462	1,250	52,243
1924–25	35,568	4,323	2,633	61,712
1925–26	36,470	4,939	3,387	60,297
1926–27	44,837	6,719	2,780	69,837
1927–28	43,889	7,339	1,819	62,928
1928–29	39,215	3,232	2,698	67,207
1929–30	47,085	3,487	2,299	66,429
1930–31	42,974	2,328	1,594	76,092

Included in the last column are smaller areas planted with cotton, fodder crops, groundnuts, potatoes, kaffir corn, oats, etc., which are considered minor crops.

Although the rains were somewhat late in starting, preparation and planting were carried out, and completed in the majority of cases, in good time. Somewhat late plantings were necessary in some cases owing to the lateness of the rains in particular districts. A very severe drought in February caused much uneasiness and it was thought at one time that very poor yields would be received. Rainfall was ample from the end of February onwards, and, although the crops were not as heavy as had been wished, they may be described as moderate in amount and good in quality.

The area under maize was decreased by some 4,000 acres in comparison with the previous year. The yield in bags was approximately 8,000 less than in the previous year. The following table gives the maize statistics from 1921 onwards.

Year ending 31st December.	*Area in thousands of acres.*	*Average yield per acre.*	*Yield in thousands of bags.*	*Farm consumption in thousands of bags.*	*Surplus available for sale in thousands of bags.*
1921 ...	29	4·88	145	18	127
1922 ...	25	3·49	99	18	81
1923 ...	38	5·18	199	32	167
1924 ...	35	3·08	129	28	101
1925 ...	36	2·67	95	23	72
1926 ...	36	4·87	177	37	140
1927 ...	44	5·50	250	36	214
1928 ...	44	4·59	183	32	151
1929 ...	39	5·50	201	33	168
1930 ...	47	4·30	202	37	165
1931 ...	43	4·50	194	32	161

The area under irrigated wheat was 1,594 acres being 501 less than the previous season. The yield was 3·6 bags per acre and the total production 5,627 bags. Two factors are responsible for the lowering of the acreage planted to wheat. The two previous seasons, in which the rainfall had been somewhat scanty, had caused a serious diminution in the water available for storage in dams and the acreage has had, to a great extent, to be limited to that for which water is available. Secondly, some of the wheat growers did not plant up to maximum capacity because of the difficulty in finding markets for the produce. Comparative figures of wheat production for the past six years are as follows :—

Year.	*Acreage Planted.*	*Yield in Bags of 200 lb. net.*
1925	2,633	9,895
1926	3,387	11,687
1927	2,780	10,586
1928	1,819	8,754
1929	2,698	12,141
1930	2,299	9,583
1931	1.594	5,627

2,328 acres of virginia tobacco were planted, representing a decrease of 1,159 acres from the previous season. The reason for this is the unsatisfactory state of the market in the United Kingdom and the difficulty of disposing of those stocks which have been accumulated in the bonded warehouses. The total yield was 951,259 lb.

Cotton growing was confined to the experimental work which is being carried out at the Central Research Station, under the supervision of the officer seconded by the Empire Cotton Growing Corporation, and to experimental crops grown for the station by selected farmers. Although a variety of cotton entirely suited to local conditions has not yet been evolved, the progress made is most satisfactory and the experimental work which has been carried out will be continued. The proved value of cotton as a rotation crop for maize has caused the experiments which are being carried out to be of considerable value to all engaged in agriculture.

The area under groundnuts again fell, only 879 acres being planted. One of the principal reasons for this is the low price at which groundnuts imported from Portuguese Africa are being landed in the territory.

It is gratifying to record that considerably more attention is being paid to the growth of leguminous crops for green manure and forage. Sunnhemp is still most popular, there being 3,924 acres planted to this crop during the year, an increase of 2,546 acres over the previous year and 3,651 acres over that produced, and ploughed in, during 1929, when the advantages of this crop first began to be realized. In certain districts, half the arable land has been laid down to a green crop and the yield of the succeeding maize crop is, in the opinion of those concerned, sufficient to encourage them in this practice.

Those engaged in all branches of agriculture in Northern Rhodesia still experience many difficulties. For the past two or three years climatic conditions have been somewhat difficult and competition from other sources has been very great. For example, maize meal was offered from without the territory, and large quantities imported, at a price below 6s. per bag of 183 lb. A very considerable amount of the maize produced in the territory remained unsold, even though a large contract was entered into with the mining companies, when the outbreak of foot and mouth disease in Southern Rhodesia necessitated the imposition of restrictions upon all animals and agricultural produce from that territory. A trade immediately sprang up with the Union of South Africa at equally low prices, and eventually Government approached the Union authorities in the matter. As a result, Government imposed a tariff duty of 2s. per 100 lb. maize meal and 3s. per 100 lb. maize if imported from the Union. Thus the onus of supplying the requirements of the territory fell upon local producers and it is most gratifying to be able to record that no unfair advantage has been taken of the position by those engaged in distributing and selling agricultural produce. Prices have remained at or about those obtaining during former years.

There is evidence that more and more farmers are realizing the benefits of smaller acreages, well cultivated, and substituting these for large acreages which cannot receive adequate treatment. There is still room for improvement in this respect but it is obvious that more forethought is being given to the general programme to be followed.

During the past few years, increased and increasing markets have been the rule. The very great development in the copper areas in the north of the territory opened out demands which had not been anticipated and increased acreages, together with increased settlement in the near future, appeared to be certain and justified. The Government, however, still continued its policy of refraining from organizing a settlement scheme, or offering land for sale, until the value and extent of the arable properties in the neighbourhood of the railway line had been investigated, and also until the economic position of the industry in relation to markets had been verified. An Agricultural Survey Commission commenced in 1929 to inspect all the unalienated Crown land in the vicinity of the railway line, and, by the end of the year 1931, had been able to make reports on the majority of districts in the areas inspected. These reports showed that the unalienated land comprises many areas suitable for ranching on a big scale but fewer and smaller areas suitable for arable farming. Details concerning those areas which are suitable for cultivation as well as of all other areas, are now available. During the year, Mr. Milligan, late Agricultural Adviser to the Government of India, conducted an economic survey of the settled areas adjoining the railway line and of the markets in the western portion of the territory, particularly those in the mining areas. At that time, several of the mines which were under development were nearing the production stage, and the closing down of some, which followed towards the end of the year, was not anticipated. Mr. Milligan, however, came to the conclusion that the local markets were insufficient to justify any extensive endeavour being made to proceed with a larger settlement scheme and advocated that Government should postpone such a programme and depend, for the time being, upon those settlers who come of their own accord to commence farming operations in the territory. Soon afterwards, general world conditions and the decreasing demand for copper caused the closing down of several of the properties and, at the end of the year, only the Roan Antelope and Nkana Mines remained operating to produce the amount of copper which has been allotted under the quota arrangements. The markets, therefore, ceased to expand, and, for the time being no justification exists for any considerable extension of arable farming. There is still, however, a great shortage in the territory of dairy produce, bacon, pork, hams and other general farm produce and an increase in the home production of such commodities, preceded by the erection of a well equipped and well financed creamery, is not only justified but essential. Negotiations are proceeding which it is hoped will result in the starting of an up-to-date creamery at Lusaka which it is confidently expected will be of the greatest advantage to the farmers of the territory in general.

As regards meat, it is more than doubtful whether the animals available for slaughter in the territory would have been sufficient to meet the demand had it continued to increase. The present easing in demand has given breathing space to ranchers and cattle-owners during which every endeavour will be made to get the cattle industry upon a more satisfactory basis. The greatest difficulty has in the past lain in ensuring the supply of fat cattle towards the end of the dry season when grazing conditions are poor and pasturage bad. Very little attention has been paid to the provision of extra foodstuffs in the form of crop leavings, cheap ensilage, and veld hay for the maintenance and betterment of the condition of animals destined for sale during the dry season. The necessity for this has, however, now been realized and increased efforts in this direction are being made in all districts. A Live Stock Co-operative Society has been established for the sale of cattle more especially slaughter cattle belonging to members. Government is erecting weighbridges at four centres upon the railway line and it is hoped that sale by weight, instead of the less satisfactory sale by lots at auctions, will result in a better price being realized by producers and greater satisfaction being experienced by consumers.

Despite the general depression caused by the restriction of mining activities, there would appear still to be markets sufficient to absorb a very considerable amount of the produce and cattle available.

Government funds are available for loans to settlers for specific objects in connexion with the agricultural industry, but a number of farmers have been unable to give the security necessary before loans of this type could be made.

The diminution in labour demands in the mining areas has caused much more labour to be available for general farming purposes in all districts, and upon those farms where adequate pay and suitable conditions are given no difficulties have been experienced in finding sufficient labour.

For the first time since European settlement took place a large invasion of locusts has been experienced. The swarms comprise both Redwing and the tropical phase of the migratory varieties. Although every attempt was made to destroy hoppers hatched in Tanganyika, the area covered was so vast that in many districts it became impossible and the resultant swarms invaded Northern Rhodesia and laid eggs in the districts adjoining the northern borders. Some of the swarms proceeding in a S.S.W. direction, invaded Barotseland and oviposition commenced there. At the end of the year, a very extensive campaign of hopper destruction was in progress but the vastness of the area covered and the difficult climatic conditions caused by the heavy rains were proving obstacles of considerable magnitude. A small amount of damage has been done to native gardens in less settled areas but no damage whatsoever has yet been done in the settled areas.

Difficulties are still being experienced by tobacco growers in the Fort Jameson district. The leaf which they have produced in the past, mostly bright, has been of good quality and has found favour in the English and other markets. Abnormal accumulation, however, of colonial grown leaf on the home market has, for the time being, caused such an unsettled state of affairs and such a fall in price, that extension of the acreage planted to tobacco cannot yet be justified. Government has continued its assistance to those planters who were financially unable to continue operations, and only that portion of the leaf produced which was of good quality and likely to find favour with buyers has been exported. Considering general world conditions as regards tobacco, the planters in Fort Jameson have done as well as can be expected, and so soon as the present slump is over steady progress will be possible in this very important branch of the agricultural industry.

Considerably increased acreages are being devoted to coffee in the Abercorn district. Some of the bushes are just coming into bearing and their numbers will increase year by year. The coffee exported from the original plantations has realized most satisfactory prices upon the home market, and there is every reason to believe that an expansion of the coffee-growing industry in the area mentioned, will be of advantage to the district and to the territory in general.

The territory continues to be free from the major diseases of stock, pleuropneumonia in Barotseland being the one exception. Extension of that disease is guarded against by the maintenance of a strong police cordon along the borders. Loss from such diseases as quarter evil and anthrax has been lessened to a very great extent by prophylactic inoculation and the incidence of these diseases is becoming, year by year, of less economic importance. Practically the whole of the European-owned stock in the settled areas is regularly dipped, and this practice is now being extended to native reserves by the provision by Government of dipping tanks in certain areas. The practice has been received with greater enthusiasm than was at first anticipated, and there can be no doubt that it will be followed by a very great improvement in the general condition of native-owned stock. Natives who have regularly brought their cattle to be dipped have been presented by the Government with slightly improved bulls for work in the herds. As time goes on, still further improved animals will be available but a general improvement in cattle mastership is essential before any marked progress can be made. The Dipping Inspectors at the various tanks are doing all possible to instil better principles and it is anticipated that considerable improvement will follow the elimination from breeding herds of old cows and immature heifers, and from the castration of undesirable males. The native-owned cattle in the territory are of enormous potential value, in that they not only contribute about 50 per cent. of the stock slaughtered in the territory but also form the foundation of European-owned herds in the more settled areas.

One of the greatest difficulties experienced by stockmen, both European and native, is the destruction of grazing by grass fires which are started towards the end of the dry season. This destruction of very valuable grazing is one which it is most difficult to combat.

Every endeavour is being made to instil into the minds of natives the evils which may follow extensive grass burning, but it is certain that more and more dependence must be placed upon paddocking and closer grazing of the areas upon which the greater number of the cattle feed at present. During the year under review, the rainfall was insufficient to promote good pasturage in all districts and also adequately to fill the small streams, pools, and water holes from which the animals regularly drink during the dry season. It became essential, therefore, to remove to the flats adjoining the Kafue river large numbers of animals which, under normal conditions, would have remained in their usual grazing grounds. Although severe mortality occurred amongst some native-owned herds, it was not nearly so great as would have been the case had the areas referred to not been available.

Upon the whole, it may be said that, in spite of the difficult conditions experienced during the year under discussion, the period has by no means been so difficult for farmers in Northern Rhodesia as for their neighbours in other territories.

Mining.

PRODUCING MINES.

Roan Antelope Mine.—The Roan Antelope Mine went into active commission late in May according to programme. Before the end of the year the plant had proved capable of treating considerably more than its rated capacity and all underground preparations were found ample to meet any demand likely to be made. Concentrates were exported until the smelter was completed.

The "sub-level" method for the underground mining of this wide deposit in fairly weak ground has proved adequate.

The "all-in" electrolytic costs of the copper to date have been so low as to show that early estimates were very conservative. It is, therefore, to be presumed that the property is one of the cheapest copper producers in the world. Electrolytic costs even at present are down to £30 per ton of copper and costs are lower still on the basis of fire-refined output, a good demand for which is expected.

As from 1st January, 1932, this producer will be restricted under the copper quota arrangement to a monthly copper output of 2,320 long tons.

At the end of the year 562 Europeans and 3,815 natives were employed.

Nkana Mine.—Preparations for stoping above the 450 foot level were vigorously prosecuted along the whole of the north ore body and underground haulage was installed on the 450 level. 600 foot level preliminary development was completed for a long distance. The central shaft, which will be the main hoisting shaft at this end, attained a depth of 1,002 feet and was equipped with large winding engines. In December stopes were opened.

The concentrator, smelter, and power plant, were practically built and equipped during the year.

Of the numerous further activities at this mine may be mentioned the construction of a large modern European hospital, twenty-seven additional family residences, native quarters for 300 married natives, central cooking kitchen for unmarried natives, water-borne sewerage for the native compound, and a large pumping plant with four miles of water main.

Broken Hill Mine.—The mining of zinc silicate ore for the production of electrolytic zinc was in progress at Nos. 1, 2 and 3 Kopjes and E outcrop whence 16,850 tons were mined averaging 27 per cent. zinc and 1 per cent. vanadium oxide; these operations were suspended from July until the market for zinc becomes favourable.

From January the production of fused oxide of vanadium became an established new industry of the company, production having been maintained throughout the year.

As the result of highly important disclosures in the occurrences of vanadium bearing laterites on the property, the opening up, mining and milling of such laterites were conducted continuously throughout the last six months for the marketing of both fused vanadic oxide and vanadium concentrates.

Power output amounted to approximately 50 million kilowatt hours as compared with over 107 million the previous year when zinc production was continuous.

The labour force was reduced until at the end of the year it was only about half at its commencement, the closing figures being 94 Europeans and 761 natives.

Bwana Mkubwa Mine ceased mining operations on 31st January. Treatment plant and smelter operations were continued during February and March, whilst in April the refinery was experimenting with Nkana concentrates. Much mining and treatment plant was transferred to Nkana Mine.

The residual staff were active in mining limestone; their foundry was busy producing castings throughout the year.

Luiri Gold Areas Limited.—At *Matala Mine,* difficulty has been experienced in mining the higher grade portions of the ore body, dilution having been found excessive. Underground work was suspended in June.

At *Dunrobin Mine* the present programme consists of mining as nearly as possible 1,000 tons of ore per month at 25 dwt. and adding about 2,000 tons per month to the reserves. Second and third level results are encouraging.

New Jessie Mine (Jessie D.B. location). Under the new company the New Jessie Gold Mining (Prop.) Limited was thoroughly overhauled below and above ground to restart operations. For the first time the underground stoping and development of this small mine have been carried out on model principles and are in good conditions for progress laterally and in depth.

Sasare.—Some gold has been won from extensions of the old Sasare Mine working in the Petauke district.

DEVELOPING MINES.

Mufulira Mine.—Important advances were made as soon as it was resolved to tap the hanging wall of the second ore body by means of collared holes with casings and valves. This precaution, together with the installation of adequate pumping facilities, soon demonstrated that the water problem was not serious ; the pumping peak was reached in November and the water table has been lowered to a gratifying extent over 4,000 feet of strike which are making no more than 2,500 gallons per minute.

The opening up of high grade stoping blocks and adequate reserves on the first and second levels has placed the mine on a sound operating basis for several years to come.

The extensive programme of surface construction was completed and the plant of 1,500 tons a day rated capacity was ready to begin producing concentrates in December so that both mine development and mills, together with the necessary shops and housing, are now complete. Power house and shops are on a larger scale for 6,000 to 7,000 tons of ore daily ; other foundations are also complete for the larger scale plant.

Under copper quota arrangements this mine was temporarily closed down ; full precautions were taken, prior to allowing the underground workings to flood, that subsequent mine de-watering procedure should be as quick and simple as possible.

Chambishi Mine (Mufulira Copper Mines, Ltd.). Operations were suspended in June after approximately 600 feet of shaft sinking had been completed through difficult ground.

Kansanshi Mine.—The development work carried out during the year consisted of the sinking and timbering of the south main shaft to the 550 foot level and the sinking and timbering of the north main shaft to the 300 foot level.

Work in both was stopped in June, at which date the footage sunk and timbered in each for the year was respectively 125 and 100.

With the stoppage of development work, a drilling programme was resorted to and seven drilling shifts were put on. The total footage drilled for the year was 8,241. At the end of the year there were 11 Europeans and 123 natives employed at the mine.

Nchanga Mine.—Nchanga Mine commenced this year with very active development in the Chingola Special Grant Area but the scale of operations was slowly reduced and all activities ceased shortly after the flooding of No. 1 shaft working in September. The extremely rich ore body was reached by No. 1 shaft cross-cut.

PROSPECTING.

Rhokana Corporation Limited.

(a) *Rhodesian Congo Border Concessions.*—An average of twenty geologists was maintained in the field and 9,108 square miles were traversed and mapped during the year. Thirty-two mineral occurrences were recorded, twenty-one of copper, nine of gold, and two of iron and manganese. 27,951 linear feet of potholing, thirty-seven feet of cross-cutting from potholes, and 73,015 cubic feet of trenching was done. This intensive work followed on previous geological traversing and was for the purpose of obtaining more detailed information of mineral occurrences and horizons. 2,506 feet of diamond drilling was done to test deposits at depth. A manganese occurrence at Luano East was opened up and about 877 tons of ore were mined for experimental purposes.

(*b*) *Nkana Concessions.*—During April and May, three geologists systematically prospected 228 square miles.

Loangwa Concessions.—An average of thirty geologists, each with a complement of about twenty natives, systematically traversed and geologically mapped 12,662 square miles. At the end of the year, the field staff had been diminished to twenty-three geologists to meet a somewhat reduced programme for 1932.

Discoveries included occurrences of gold, copper, manganese, coal, and iron. Very intensive prospecting was done in the vicinity of certain discoveries of gold to the east and south of Mulungushi. Trenching and potholing operations are still in progress within that area.

Rhodesia Minerals Concessions.—From six to nine geologists have been prospecting by traversing or else have been trenching, potholing, and sampling ore discovered on prospects and occurrences of copper, lead, zinc, gold, or silver.

Encouragement is derived from the widespread character of the occurrences of economic minerals.

On the King Edward Mine, nine diamond drill holes involving 5,885 feet of drilling have disclosed the presence of over 5,000,000 tons of cupriferous pyrite carrying about one and a-half per cent. copper and 20 per cent. of sulphur. Along the strike to the north-west there is possibility of extension of this deposit.

Kafue Copper Development Company, Limited.—Geological mapping of the Sable Antelope, Silver King, Crystal Jacket, and Hippo properties were completed, forty square miles thus being mapped on a scale of eight inches to the mile by means of parallel traverses at 220 yard intervals; some diamond drilling and pot-holing were also carried out.

Four Europeans and two drill operators were employed and the work was completed in September.

Kasonso Syndicate (copper), *Star Zinc* (now Stella Mines, Limited). —Zinc and all coal prospecting operations were at a standstill during the year.

A copper deposit in the Mumbwa district called "Garenda" has been found well worth investigating in detail but no news is to hand of any further prospecting results by individual holders of ordinary prospecting licences.

GENERAL.

Fusion of copper interests was effected in time to guide the industry throughout this perilous year; it provided for cessation of work on some backward properties and for the full development of the three more advanced properties, Roan Antelope, Nkana, and Mufulira. Even though prices were low when the Roan Antelope commenced output, their most gratifying costs figure pointed clearly to the probability that this territory's copper producers will always be amongst the cheapest producers in the world.

In spite of the general slump, it could be said that in the mineral industry activity had continued unabated throughout the year, although its earlier rate of rapid growth had not been maintained. Successful exploration of vanadium-bearing ground at Broken Hill was a considerable off-set to the fall in zinc prices, since it showed the Rhodesia Broken Hill Development Company that ground hitherto deemed mere overburden on zinc minerals was itself highly remunerative upon treatment for the recovery of vanadium.

The two small gold producers were more active and in better shape, whilst the geological prospecting work throughout the territory was prosecuted on the usual important scale.

The mines labour force decreased from 3,307 Europeans and 29,689 natives in December, 1930, to 1,943 and 13,261 respectively in December, 1931.

The following table shows the mineral production during 1931 compared with that for 1930 :—

Mineral Production.

	1931.				1930.			
		£	s.	d.		£	s.	d.
Gold	9,364·10 oz.	39,776	3	0	7,513·78 oz.	31,903	13	0
Silver ...	548·49 oz.	32	11	0	637·27 oz.	46	5	0
Copper ...	8,927·27 tons	346,277	12	0	6,269·02 tons	343,767	0	0
Copper Concentrates.	24,110·28 tons	459,194	9	0	—	—		
Copper, other	3,215·10 tons	8,182	16	0	—	—		
Zinc	6,927·37 tons	81,766	15	0	20,015·08 tons	339,825	6	0
Vanadium ...	335,971 lb.	225,661	16	0	122,577 lb.	87,320	10	0
Vanadium Concentrates.	703·32 tons	94,424	4	0	—	—		
Manganese Ore	1,467·19 tons	2,200	14	0	872·68 tons	1,309	0	0
Iron Ore ...	759·00 tons	379	10	0	9·54 tons	4	14	0
Mica	3,098 lb.	774	10	0	8,954 lb.	2.238	10	0
		£1,258,671	0	0		£806,414	18	0

CHAPTER VII.

COMMERCE.

The combined value of trade imports and exports for the year 1931 amounted to £6,288,841, as compared with £5,748,698 in 1930, an increase of £540,143 or 9·4 per cent.

The value of merchandise imported during the year under review amounted to £5,105,440, as against £4,862,722 in 1930, an increase of £242,718 or 4·9 per cent.

In addition, Government stores to the value of £214,559 and specie to the value of £12,315 were imported.

The total exports were valued at £1,183,401 as compared with £885,976 in 1930, an increase of £297,425 or 33·5 per cent.

From the above figures it will be seen that the year as a whole can be recorded as entirely satisfactory. The territory did not until November last begin to feel the economic depression which has been felt so severely since the end of 1930 by practically all other countries, and the prosperous state of its trade was undoubtedly due to the development in the mining area, which continued until towards the end of the year.

Importation of plant, mining machinery, and structural steelwork again account for a large proportion of imports, but capital goods of this nature cannot be expected to continue to arrive during 1932 as the production stage has been reached by the Nkana and Roan Antelope mines and development of the remaining sites has now been curtailed.

The export trade is almost entirely dependent upon minerals and the increase in the value of exports in 1931 reflects the increase in copper produced. It can be anticipated that in 1932 exports will be more than doubled.

The trade balance of imports over exports amounts to £3,922,039 as compared with £3,976,746 in 1930, and is accounted for by large importations in connexion with the mining industry during development.

The following figures show the value of imports of merchandise and the value of exports—excluding specie—for the past ten years :—

Year.		*Imports.*	*Exports.*
		£	£
1922	...	474,290	599,371
1923	...	502,002	461,807
1924	...	662,642	454,057
1925	...	1,284,025	432,997
1926	...	1,667,584	484,382
1927	...	1,957,138	755,525
1928	...	2,366,317	847,068
1929	...	3,602,417	899,736
1930	...	4,862,722	885,976
1931	...	5,105,440	1,183,401

The following summary furnishes a comparison of the value of imported merchandise which originated from British and from foreign countries during the years 1929 to 1931 :—

Imports from :	1931	1930	1929
	£	£	£
Union of South Africa	729,286	357,303	327,893
Southern Rhodesia*...	642,263	856,069	534,366
United Kingdom and other British Possessions	2,404,565	2,199,789	1,679,000
Total British Empire	3,776,114	3,413,161	2,541,259
Foreign Countries	1,329,326	1,449,561	1,061,158
Total Merchandise	£5,105,440	£4,862,722	£3,602,417

For the purpose of illustrating the routes of trade, the following table shows the value of merchandise received from the Union of South Africa, from Southern Rhodesia, and directly from overseas during the years 1929 to 1931 :—

Imports from :	1931	1930	1929
	£	£	£
Union of South Africa	1,467,722	947,026	989,649
Southern Rhodesia	1,483,674	2,101,016	2,193,304
Imported from Overseas	2,154,644	1,814,680	419,464
Total	£5,105,440	£4,862,722	£3,602,417

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* Includes produce of the Union removed from Southern Rhodesia.

The following table illustrates the comparative value of the principal classes of imports during the years 1928 to 1931 :—

	1931 £	1930 £	1929 £	1928 £
Animals (living) ...	68,315	71,032	27,668	28,965
Foodstuffs, etc. ...	466,348	457,870	302,675	200,722
Ales, Spirits, Wines, etc. (potable) ...	145,407	174,504	108,888	86,160
Spirits (non-potable)	3,601	2,032	1,344	867
Tobacco	91,956	88,203	59,336	44,624
Textiles, Apparel, Yarns, Fibres ...	570,130	609,741	592,442	471,114
Metals, Metal Manufactures, Machinery and Vehicles ...	2,485,883	2,206,841	1,595,084	902,110
Minerals, Earthenware, Glasses and Cement	257,204	304,207	205,014	161,993
Oils, Waxes, Resins, Paints, and Varnishes	235,605	286,951	184,021	102,982
Drugs, Chemicals and Fertilizers	91,207	87,920	80,256	89,396
Leather, Rubber and manufactures thereof	116,580	117,628	87,907	53,825
Wood, Cane, Wicker and manufactures thereof	151,785	208,427	152,851	82,311
Books, Paper, and Stationery	70,945	62,415	52,967	33,940
Jewellery, Timepieces, Fancy Goods, etc.	58,872	63,546	49,959	42,027
Miscellaneous ...	291,602	121,405	102,005	65,281
Total imports ...	£5,105,440	£4,862,722	£3,602,417	£2,366,317

The following summary furnishes a comparison of the value of exports to British Possessions and to foreign countries during the years 1929 to 1931 (excluding articles exported through the post and specie):—

	1931 £	1930 £	1929 £
Union of South Africa	131,212	70,689	84,454
Southern Rhodesia	111,171	85,788	79,426
United Kingdom and other British Possessions	332,526	556,709	470,058
Total British Empire	574,909	713,186	633,938
Foreign Countries	605,448	163,809	260,895
Total	£1,180,357	£876,995	£894,833

The following summary furnishes a comparison of the value of exports to the Union, to Southern Rhodesia, to the United Kingdom, and to other British Possessions, and to foreign countries, distinguishing domestic exports and imported goods re-exported, during the years 1929 to 1931 (excluding articles exported through the post and specie) :—

Domestic Exports.	1931	1930	1929
	£	£	£
Union of South Africa	57,527	54,230	71,676
Southern Rhodesia	30,182	19,112	35,904
United Kingdom and other British Possessions	324,690	539,705	460,665
Foreign Countries	576,848	155,801	250.882
Imported Goods Re-Exported.			
Union of South Africa	73,685	16,459	12,778
Southern Rhodesia	80,989	66,676	43,522
United Kingdom and other British Possessions	7,836	17,004	9,393
Foreign Countries	28,600	8,008	10,013
Total	£1,180,357	£876,995	£894,833

The following table illustrates the comparative value of the principal items of domestic exports for the years 1928 to 1931 :—

	1931	1930	1929	1928
	£	£	£	£
Animals (living)	18,913	2,458	8,928	22,456
Hides, Skins and Horns	19,807	13,486	39,165	44,898
Ivory	3,309	3,883	8,922	9,911
Butter...	434	76	551	431
Wheat	1,451	2,870	13,855	9,218
Maize, including other cereals in the grain	18,004	16,545	25,567	29,964
Maize meal	6,185	4,818	17,781	23,488
Pulse	211	667	1,040	185
Tobacco (unmanufactured)... ...	33,346	57,163	70,310	100,848
Cotton (raw)	—	5	158	238
Copper (all kinds)	505,204	226,382	236,716	240,367
Lead	—	—	37,729	71,103
Vanadium	17,871	24,710	16,389	3,457
Other ores	—	14,352	34,904	13,277
Zinc	200,675	341,660	262,611	—
Other metals	—	—	—	* 166,866
Gold	35,390	26,511	3,441	1,815
Silver	58	48	12	23
Lime	866	930	940	948
Wood, manufactured and partly manufactured	29,937	17,053	20,316	26,037

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* Approximately 90 per cent. of this value consisted of zinc.

The following are the ports of entry into and exit from Northern Rhodesia :—Ndola, Livingstone, Mokambo, Fort Jameson, Broken Hill (free warehousing ports) ; Abercorn, Kansanshi, Fort Rosebery, Nchanga, Kawambwa, Mpika, Balovale, Mwinilunga, Isoka, Chiengi, Feira, Kazungula.

CHAPTER VIII.

WAGES AND COST OF LIVING.

During the year 1931 there have been great changes in the labour position. At the beginning of the year there was employment for every native who desired it but in the latter months when economic depression had set in the supply exceeded the demand and unemployed were searching far and wide in the industrial areas for work. The average number in employment during the year was approximately 79,000 but by December the number actually employed was less than it had been for some time past.

Larger numbers than in previous years found employment in Government work on roads and aerodromes, in the building trade, and in domestic service but, as was to be expected, there was a great decline in the amount of employment available on the mines where the number employed fell from 28,974 in January to 13,261 in December. In agriculture, too, there was a decrease in the demand for labour and during the year there have been no complaints of scarcity of labour from the farming areas.

It will be a cause of great regret among the native population if, as appears probable, there is to be comparatively little employment available on the mines for some little time. The mining companies have justly acquired a very desirable reputation as employers. Wages are high, hours of work are reasonable, rations are good, varied in quality and generous in quantity, the health of employees is carefully supervised and ample recreational facilities are provided. Unfortunately accident rates and sickness rates are still too high, but with a more rigorous inspection of mines and in the more stable conditions attending the completion of construction work there is every reason to believe that there will be a marked improvement in this regard.

On the whole there has been little evidence of any tendency on the part of employers to take advantage of the present situation to the detriment of their employees by reducing wages. The more usual policy, the wisdom of which is clearly apparent, has been to weed out the unsatisfactory and inefficient and retain the services of the more experienced type of employee.

As the years go on and experience is obtained it becomes more possible to assess the reaction of industrial employment upon the social life of the people and upon the tribal system. It has been observed that the flow of labour is seasonal and the supply fluctuates on parallel lines from month to month; the greater number turn out in the lean months when the food supply in the villages is running low, and return in the months of plenty.

Wages of Africans are as follows:—

Clerks from £2 to £7 per month.

Artizans from £2 to £6 per month.

Labourers, Mines, from 17s. 6d. to 22s. 6d. per month, surface.

Labourers, Mines, from 30s. to 37s. 6d. per month, underground.

Labourers, Agricultural, 10s. to 17s. 6d. per month.

Labourers, Railways, 12s. 6d. to £1 per month.

Labourers, Roads, 12s. 6d. to £1 per month.

In addition liberal food rations are supplied by employers in accordance with a scale laid down by law. The staple food of Africans is meal obtained from cereals. The cost of the minimum monthly ration, i.e., 60 lb. is (*a*) in towns 4s. 6d. to 5s. 6d., (*b*) in country districts 3s. to 4s. A ration of meat and vegetables is provided and costs about 4s. per month per head.

The cost of living for Europeans is governed mainly by the cost of transport. Transport charges, even in the case of places on the railway, add considerably to the price of commodities. When transport by motor or other means is necessary, as it is in the case of places off the line of rail, the average price is still further increased.

The average price of various commodities is as follows:—

	Average.	
	s.	*d.*
Bread, per lb. loaf		8
Local flour (1st grade), per lb.		7½
Patna rice, per lb.		7
Mazawattee tea, per lb.	3	11
Sugar (white granulated), per lb.		7¾
Coffee (av. loose and tinned), per lb.	2	7
Butter, per lb.	3	0
Bacon, per lb.	2	7
Eggs (European farms), per doz.	2	8
Eggs (native), per doz.	1	0
Milk, per pint		4
Beef, per lb.		9½
Soap (Sunlight), per packet	2	3
Kerosene, tin of 4 gallons	17	5
Motor spirit (Shell), per gallon	3	0

The cost of clothing is approximately 75 per cent. higher than European prices.

CHAPTER IX.

EDUCATION AND WELFARE INSTITUTIONS.

For the education of European children there were in 1931 controlled schools at Livingstone, Choma, Mazabuka, Lusaka, Broken Hill, Bwana Mkubwa, Ndola, Luanshya, Nkana, and Mufulira offering primary education up to Standard VII, with the additional subjects Latin, French, Algebra in Standards VI and VII and Geometry in Standard VII. There were schools at Machili, Tara, Kafue, Silver Rest, Chilongolo, Nchanga, Kansanshi, and Fort Jameson offering primary education up to Standard V. All these schools were under Government management, the tuition fees varying from 7s. 6d. to £1 17s. 6d. per quarter. The Convent School, Broken Hill, offering education up to the standard of the Southern Rhodesian Junior Certificate Examination and Chiposa School, Fort Jameson, offering primary education up to Standard V were controlled schools but under private management. A number of small uncontrolled schools were also open during the year.

Boarding accommodation was available for girls at the Beit School, Choma, and for boys at the Codrington School, Mazabuka, both under Government management, the boarding fees being £12 10s. per quarter, and at the Convent School, Broken Hill, and Chiposa School, Fort Jameson, both under private management.

Sixty-four teachers were employed in the controlled schools under Government management, the enrolment at the end of 1931 being 1,008, an increase of 234 or 30 per cent. over the 1930 figures and the largest so far recorded. In addition, 90 children were attending controlled schools under private management.

The number of children being educated outside the territory was much higher than previously supposed, the figure obtained from census returns in May, 1931, being 313. New schools were completed at Broken Hill and Luanshya and considerable progress was made with the Beit Hostel at Lusaka, the cost of the latter being met from money generously provided by the Beit Railway Trust.

Education for natives in Northern Rhodesia is still mainly provided through the agency of Mission Societies. These, however, are year by year receiving increased financial support from Government and professional guidance from the inspecting officers of the Native Education Department.

Sixteen of the Mission Societies operating in the country maintain village elementary schools, boys' and girls' boarding schools, and teacher training institutions recognized as eligible for Government grants. A total sum of £15,472 was directly distributed amongst them during the financial year 1931–2. This amount included a grant of £1,000 from the Beit Railway Trustees, £150 from the Carnegie Corporation, and £1,870 from the Barotse National Fund—the latter grant being distributed among three societies carrying on educational work in Barotseland.

Estimated recurrent expenditure on native education during the financial year 1931–2 amounted to:—

	£
From Government Revenue ...	21,340
Beit Railway Trust	2,000
Carnegie Corporation ...	900
Barotse Trust Fund	7,855
Total ...	£32,095

Capital non-recurrent expenditure on departmental buildings completed during the year is estimated at £10,850 of which £4,000 represents a grant from the Beit Railway Trust towards the establishment of the Jeanes and Agricultural Schools. Including the sum of £4,000 mentioned above a total sum of over £12,000 from the Beit Trust has been expended in the establishment of these schools. A further sum of £2,100 was granted to Mission Societies to assist in the erection of buildings for educational purposes.

Owing to the recent increase in the European personnel of the Department it is becoming possible to carry out regular inspections and to ensure that the monies being paid by Government are being utilized satisfactorily and that a steady improvement in the standard of education is being maintained.

Twenty African teachers (two of whom are women) passed the written part of the Government Certificate Examination during the year. There are now 302 natives holding these certificates provisionally and the work of confirming them after inspection of their practical teaching work is now well in hand.

Three hundred and fifty-five youths are now attending teacher training courses in Mission normal schools, or are in middle schools preparatory to entering definite training courses.

Annual returns, however, shew that Mission Societies employed on 31st December, 1931, some 2,500 teachers in 2,171 schools and sub-grade schools. The majority of these teachers must be classed as catechists or evangelists in charge of so-called " bush " schools and have never had an adequate course of professional training or even passed Standard II of the village school course.

Two hundred and eighty-one certificated teachers were in the service of Missions at the end of the year and qualified for the Government grant-in-aid.

One hundred and twenty-four European teachers and thirty-one European technical instructors were engaged in native education in Missions during the year.

Sixteen Europeans and twenty-two African teachers and instructors, including the staff of the Barotse National School, comprised the staff of the Native Education Department.

Returns, which must be regarded as approximate, shew that 11,370 boys and 5,350 girls attended " recognized " schools, while roughly 24,000 boys and 25,000 girls attended "sub-grade" schools. Three hundred pupils are at present attending Government elementary and middle schools including the Barotse National School which is maintained entirely by the Barotse National Trust Fund. It is estimated that there are about 265,000 children of school age in Northern Rhodesia.

The foregoing figures give some idea of the magnitude of the task of improving the standard of village elementary education to which Government and Mission Societies are devoting themselves. It is hoped that the Jeanes Training School established by Government at Mazabuka will be an important and effective agent in the work. At present there are twenty-two selected Mission Teachers being trained as "Jeanes" teachers. Their wives also receive training in hygiene, child-welfare, and domestic subjects such as cooking, sewing, etc.

At Mbereshi (London Missionary Society) women teachers are being trained along "Jeanes" lines. A grant of £500 per year is given towards the cost of this training; half being borne by Government and half by the Carnegie Corporation.

There are sixteen boarding girls' schools subsidized by Government, with an enrolment of 432 pupils. Domestic and vocational training is an important feature of the curricula of these girls' schools.

Boys receive training as carpenters, masons, and bricklayers at the Barotse National School, at Mbereshi (London Missionary Society) and, to a lesser degree, at several other Mission stations. Eight native agricultural assistants are being trained at the Government Agricultural School at Mazabuka. It is the intention of Government to establish a Trades School for the training of carpenters, masons, and bricklayers at the proposed new capital.

Government has also established an elementary and middle boarding school for boys at Mazabuka and an elementary mixed school at Ndola.

The proportion of expenditure on native education to total expenditure of the territory was 2·34 per cent.; the amount spent per head of native population on native education was approximately 3½d.

CHAPTER X.

COMMUNICATIONS AND TRANSPORT.

Railways.

The railway from Southern Rhodesia via the Victoria Falls to the Belgian Congo passes through north-western Rhodesia. Two mail trains, to which dining cars are attached, run each week in each direction. There is, in addition, one train per day, Mondays excepted, in each direction between Livingstone and Ndola. No dining car is attached to this train, but it stops at certain places sufficiently long for passengers to take a meal at the local hotel. Second-class accommodation only is provided on this train. All mail trains carry first- and second-class passengers and sleeping accommodation is provided.

Transport to stations in the Barotse Valley is by barge along the Zambezi River, but for rapid transport light aeroplanes are now being used to Mongu, where there is a Government aerodrome. There is no sleeping accommodation on the barges which are tied for the night whilst travellers camp on land.

Roads.

With the exception of that portion of the Great North Road lying between the Victoria Falls railway bridge and Livingstone, a distance of seven miles, and the private road of the Broken Hill Mining and Development Company leading from their plant and mine to the hydro-electric power station on the Mulungushi River, some thirty-six miles away, there are no macadamized roads in the territory, and these two alone, excluding, of course, roads in the township areas, can be described as " all weather " roads. The remainder are earth roads and until the commencement of the present year, the rivers which they cross were generally bridged by bush timber structures and occasionally by light bridges on steel rail foundations. Where the roads cross low-lying and marshy country, embankments or drainage have usually been provided, but traffic is liable to interruption during at least February and March, that is, the latter part of the rainy season.

The extensive bridging and culverting programme which was entered into during the last year should, however, effect an immediate improvement. Rapid progress in the programme has been made and arrangements have been completed for still more rapid developments in the ensuing year. Provision has also been arranged for reconditioning the arterial roads and this work, following upon detailed survey for suitable deviations and the bridging and culverting programme, should materially improve the road system of the territory.

A tendency towards the use of heavier vehicles became very noticeable as progressive improvements were made in the condition of roads during recent years, transport contractors naturally being anxious to carry maximum possible loads. The weights of vehicles consequently had to be restricted, particularly during the rainy season when the unsurfaced roads are particularly liable to suffer serious damage.

The Great North Road from Victoria Falls via Livingstone, Lusaka, Broken Hill, Kapiri Mposhi, Mpika, and Kasama to Abercorn and Mpulungu Harbour on Lake Tanganyika, where the Lake Steamer connects with Kigoma on the Tanganyika Railway, was kept open to traffic throughout the year, as was also the Congo Border Road which leaves the Great North Road near Kapiri Mposhi and runs via Ndola and Solwezi to Kasempa, and there joins the Mumbwa-Kasempa loop road which rejoins the Great North Road south of Broken Hill.

The Great East Road which runs from Lusaka to Fort Jameson and connects with the Nyasaland road system was open to traffic, the movement of which was severely restricted over the central portion during the rainy season. This central portion which crossed two large rivers, the Lunsenfwa and the Luangwa, has been deviated to a point on the Luangwa River below its confluence with the Lunsenfwa, and a bridge is now in course of construction there, the expenditure being met by the Beit Railway Trust.

Communication has been maintained with Fort Rosebery in the Mweru-Luapula Province by a road from Ndola which continues through the Awemba Province to rejoin the Great North Road.

Another road of importance constructed during the year is that running from Fort Jameson through Lundazi to Isoka, forming a direct link with Nyasaland and Southern Rhodesia on the south and Tanganyika on the north. A track opened from Mazabuka on the railway line to the Zambezi River has also provided direct access to Salisbury, and has been employed by travellers, though no very comprehensive construction was entered into.

Postal.

Statistics of correspondence are estimated on the basis of a fourteen days' count, multiplied by 26. For 1931, the count was taken early in October, but the peak volume occurred about June. It is possible, therefore, that the volume for the calendar year is underestimated.

The following statistical table shows a triennial comparison of correspondence dealt with.

Received.

	1931	1930	1929
Letters	3,472,612	3,413,164	2,235,272
Post Cards	83,554	50,792	35,620
Newspapers	916,764	884,416	688,792
Bookpackets	831,376	680,132	514,254
Parcels	67,184	91,208	66,560
Registered articles	91,676	85,072	67,964
	5,463,166	5,204,784	3,608,462

Despatched.

Letters	3,292,220	3,117,984	2,383,264
Post Cards	80,500	53,600	40,716
Newspapers	169,728	117,156	160,420
Bookpackets	416,052	227,064	272,558
Parcels	19,760	17,940	15,132
Registered articles	123,604	121,420	68,302
	4,101,864	3,655,164	2,940,392

The volume of undelivered correspondence dealt with in the Returned Letter Office was 29,237 compared with 23,924 in 1930.

The value of postage stamps sold was less than in the preceding year, which may be attributed to the reduction in rates of postage which came into force during August, 1930.

	1931.	1930.	1929.
Stamps sold	22,723	24,397	21,980

Money Order and Postal Order issues increased slightly, but payments increased considerably.

	1931. £	1930. £	1929. £
Money Orders issued ...	74,967	82,298	62,693
Postal Orders issued ...	47,715	39,453	22,224
	122,682	121,751	84,917
Money Orders paid	31,409	22,380	28,444
Postal Orders paid ...	16,330	14,240	10,863
	47,739	36,620	39,307
TOTAL	170,421	158,371	124,224

"Cash-on-delivery" parcels also increased considerably.

	1931.	1930.
Number	8,436	5,502
Value	£22,904	£17,442
Average value per parcel ...	£2·7	£3·1

Telegraphs.

The main telegraph route lies alongside the railway from the Victoria Falls Bridge to the Congo Border, with branches from Ndola to Luanshya and to Nchanga, and from Nkana to Mufulira. Fort Jameson is connected with the Nyasaland system, Kasama and Abercorn with the Nyasaland and Tanganyika systems.

The volume and value of traffic handled was as follows :—

	1931.	1930.	1929
Forwarded—			
Paid telegrams	103,495	99,489	73,098
Official telegrams	23,218	15,473	12,776
Number of words	·1,648,791	1,689,142	—
Delivered	110,800	99,196	74,802
Re-transmissions	400,726	324,546	227,372
Nett revenue	£16,084	£17,110	£14,378

The decrease in revenue, 6 per cent. less than in 1930, is due to a reduction in the volume of cable traffic from and to offices in the "copper belt," and the decrease in the average number of words per telegram handed in (11·7 per cent. less than in 1930).

Telephones.

An automatic telephone exchange, equipped for 200 subscribers, was opened at Ndola in October. Work on a similar exchange at Livingstone was well advanced at the end of the year and was opened for service on 14th March, 1932. Licensed exchanges are operated at the Roan Antelope, Nkana, Bwana Mkubwa, and Broken Hill Mines by the respective mining companies. The three first named are connected with the Post Office trunk system linking the following places, Ndola, Bwana Mkubwa, Luanshya, Nkana, Nchanga, and Mufulira, while Broken Hill will shortly be included. Work on the trunk route between Broken Hill and Livingstone is expected to be completed about the end of June, 1932. Apparatus for affording through communication between the southern zone (Broken Hill—Livingstone) and the copperbelt zone (north of Broken Hill) will not be available before the end of 1932.

Revenue.

	1931.	1930.	1929.
	£	£	£
Exchange rentals	1,521	920	705
Call office and trunk fees ...	277	127	122
	£1,798	£1,047	£827

Wireless.

(a) *Aeronautical Services.*

Aeronautical wireless stations have been installed at Mpika and Broken Hill for radio-electrical services in connexion with the Imperial Airways Cape to Cairo Air Route. The former was equipped for point to point communication only, by means of short-wave emissions, and the latter for communication with aircraft in flight, on a wavelength of 900 meters, as well as for point to point communication on short wave. The region surrounding these stations is subject to extraordinary atmospheric disturbances, and arrangements are being made for equipment for communication with aircraft in flight to be installed temporarily at Mpika.

(b) *Internal and International Services.*

In addition to aeronautical radio-electrical services, Broken Hill and Mpika maintain a public service, as Mpika is otherwise isolated. A licensed station at Kansanshi is open for restricted public service, and communicates with Broken Hill. Short-wave equipment is being installed at Mongu and Fort Jameson, while the Livingstone installation was completed and opened in March, 1932. Ndola station was in operation for a few months during 1931–2, after which the equipment was transferred to Broken Hill, which is the central wireless station for all purposes. International communication is maintained by Broken Hill with the contiguous territories of Tanganyika, Southern Rhodesia, and the Union of South Africa.

Revenue is included in telegraph revenue.

Aircraft.

At the end of 1931, the Cape to Cairo service of the Imperial Airways Limited had not yet been opened as far as Northern Rhodesia, but the aerodromes at Mpika and Broken Hill were fully equipped and in readiness. The service was inaugurated early in 1932.

Northern Aviation Limited, the only company at present operating in the territory, continues to run passengers and mails between Ndola and the coppermines, and to fly passengers to other aerodromes as and when required.

The usual number of machines have passed over the territory during the year, but it cannot be said that there has been any increase in air traffic.

During the holiday seasons it is usual for a light aeroplane or two to come up to Livingstone from Southern Rhodesia to take tourists and others for short flights over the Falls and vicinity.

CHAPTER XI.

BANKING, CURRENCY, AND WEIGHTS AND MEASURES.

The Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial, and Overseas) operate in the territory with branches or agencies at the more important centres. The total deposits at these banks at 31st December, 1931, amounted to £1,095,258 compared with £1,282,812 at the end of the previous year, a decrease of over 14 per cent. The Post Office Savings Bank continues to expand, the total deposits amounting to £13,386 at 31st March, 1932, compared with £11,207 and £7,682 at the close of 1930–31 and 1929–30 respectively, an increase of nearly 20 per cent. during the year. There is no Land or Agricultural Bank in the territory.

The Bank Notes and Coinage Ordinance 1931 prescribes as legal tender at par throughout the territory (*a*) Bank of England Notes, (*b*) Bank Notes issued by the Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial and Overseas) at their offices at Salisbury, Southern Rhodesia, and (*c*) the standard coinage in use in England. The enactment of this Ordinance on 12th October, 1931, marked the departure of Northern Rhodesia from the Gold Standard of currency. At the same time the export of gold or silver coin was prohibited except as personal cash not exceeding £5 in gold and £2 in silver.

The English standards of weights and measures are in force. The enactment of a local law is under consideration.

CHAPTER XII.

PUBLIC WORKS.

With the extension of the loan programme the work of the Department has continued to increase. The following is a brief summary of the major works completed and undertaken during the year.

Broken Hill.—A European school, bonded warehouse, school teachers' quarters, meteorological station, and a wireless station were completed.

Fort Jameson.—Construction of a wireless station was undertaken.

Livingstone.—The Post Office completed last year was extended and in addition a Nursing Sisters' home, a Customs warehouse and an operating and X-ray block at the European hospital were completed. A native hospital, a wireless station, and alterations and extensions to the existing European hospital were commenced

Luanshya.—Houses, Police camp, offices, and cells, Post Office, Court and rest houses and a European school were completed.

Lusaka.—Gaol, Police mess, and a native compound were completed.

Mazabuka.—A meteorological station and a normal school were completed.

Mongu.—An office and Court house and a grain store were finished, and a wireless station was commenced.

Mpika.—A wireless station was completed.

Ndola.—A European school, a wireless station, Police quarters, mess and lines were completed, together with a native school.

In addition, houses, hostels, bungalows and quarters, etc., were completed at various places, and work commenced on the native hospital at Livingstone, native compounds at Ndola, Lusaka, and Senanga, and a native dispensary at Petauke.

The majority of the work on the railway line was carried out under contract, and arrangements had been completed for the extension of the building programme to the provinces lying away from the more settled area of the territory, when the general economic situation made it advisable to suspend a considerable portion of the programme which is, at present, restricted to works actually in hand at the commencement of the year.

The Great North Road was extended through Livingstone whilst the deviations between Chisamba and Broken Hill and those between Kapiri Mposhi and Serenje were completed. A new route from Abercorn to Mpulungu on Lake Tanganyika is being constructed. On the Great East Road the central deviation is well advanced and the bridging of the Luangwa River has commenced. Improvements to the Congo Border and Mumbwa-Kasempa loop roads continue. The survey of roads to serve the western area was completed. The bridging and culverting programme was commenced and twenty-two bridges and one hundred and thirty-six culverts had been erected on the arterial roads by the end of the year.

The European staff of the Public Works Department consists of a Director, a Deputy Director, an Architect, three Executive Engineers, two Accountants, six Inspectors of Works, four Road Foremen, and five clerks.

In addition a large staff is employed on works financed from loan funds. The roads staff numbers twenty-three Europeans of whom ten are executive officers. The building staff numbers twenty-seven Europeans, of whom three have special qualifications. Some of the persons included in building staff have been seconded from the Department proper.

CHAPTER XIII.

JUSTICE AND POLICE.

Justice.

Justice is administered by the High Court of Northern Rhodesia and by the Magistrates' and Native Commissioners' Courts subject to appeal to and review by the High Court. During the year the High Court dealt with 173 civil matters as against 225 in the preceding year and heard 9 actions and 7 appeals. Fifteen petitions in bankruptcy were presented. Sessions were held at Mazabuka, Ndola, Broken Hill, and Lusaka in May, and at Ndola in December.

Thirty-two criminal cases came before the Court exclusive of reviews of judgments in the lower Courts: these latter numbered 365, of which 293 were confirmed, 24 quashed, 25 altered, 4 referred back and subsequently approved; in the remaining 19 cases the accused were bound over.

Native Courts.

The Native Courts Ordinance was passed at the same time as the Native Authority Ordinance and was, like the latter Ordinance, applied to all the territory with the exception of Barotseland as from 1st April, 1930.

Native Courts are established and constituted by the Governor and are of two grades. In addition to administering native law and custom in so far as such is not repugnant to natural justice and morality, they are given power under the Native Court Rules to try certain offences against the laws of the territory. Their power to inflict punishment is strictly limited and the Magistrates' and Native Commissioners' Courts have power to revise and review their judgments, and in certain instances to order the retrial of a case. District Officers may sit as assessors in such Courts.

The Governor has the power to suspend and dismiss members and the Provincial Commissioner has similar power, subject to a report being made to the Governor on each occasion that it is exercised.

During the short period which has elapsed since their inception, these Courts have functioned satisfactorily, have proved generally acceptable to, and well adapted to the condition of, the people.

Police.

The total number of cases dealt with by the Police during 1931 was 8,645, an increase of 3,658 on the figures for 1930, made up as follows :—

Increase of offences by Europeans.

Common Law.	Statute Law.
66	335

Increase of offences by natives.

Common Law.	Statute Law.
500	2,757

The figures quoted below will indicate the number of more serious cases dealt with as compared with 1930.

Crime.	*Europeans.*	*Natives.*	*Total*	
			1931.	1930.
Murder	—	15	15	19
Attempted murder	1	3	4	—
Manslaughter	—	22	22	11
Rape	1	20	21	20
Indecent Assault	3	31	34	9
Incest	—	—	—	2
Housebreaking and Burglary	6	137	143	74
Larceny, all forms	58	978	1,036	674
Assault	48	151	199	179
Assault o.a.b.h.	18	69	87	128
Arson	—	13	13	13
Forgery and Uttering	20	44	64	35
Unlawful wounding	8	18	26	11
Embezzlement	—	9	9	10
Receiving stolen property	1	75	76	36
Affray	—	80	80	121
False Imprisonment	—	—	—	15
Fraud	10	9	19	14
Malicious damage to property ...	3	20	23	34
Falsification of accounts	3	—	3	1
Assault on Police Officer	4	24	28	20
Attempted suicide	—	4	4	3
Attempted Sodomy	—	—	—	1
Extortion	—	1	1	1
Public Indecency	—	1	1	1
Riot	—	58	58	24

It will be seen that there has been a large increase in cases of housebreaking, burglary, and larceny which is undoubtedly due to the influx of Europeans and natives to the mining area in the early part of 1931, and to the subsequent closing down of Bwana Mkubwa Mine coupled with retrenchment on other mines in that area. The figures quoted do not include those cases heard at stations where no Police are available.

Prisons.

There are five Central Prisons in the territory situated at Livingstone, Broken Hill, Kasama, Mongu, and Fort Jameson. Committals to the Central Prisons during the year totalled 1,445 as compared with 993 in 1930. The figures for individual prisons are as follows :—

	Committed.
Livingstone	488
Broken Hill	544
Kasama	55
Mongu	246
Fort Jameson	112
Total ...	1,445

The daily average number of prisoners was 421·2 as compared with 321 for the year 1930. The average sick was 21·7 compared with 14·68 for the year 1930.

Three natives were executed during the year. There were eight deaths from natural causes as against four for the year 1930.

CHAPTER XIV.

LEGISLATION.

During the year under review three Sessions of the Legislative Council were held in March, July, and October respectively. The latter Session was an urgent meeting summoned to pass legislation concerning the Gold Standard and was adjourned until 13th November, for which date the Council had already previously been summoned.

At these Sessions the 40 Ordinances enumerated below were passed, of which no less than 24 were amendments of the existing law.

Ordinances.

Appropriation Ordinance (No. 17).
Bank Notes and Coinage Ordinance (No. 23).
Boy Scouts and Girl Guides Associations Ordinance (No. 3).
Chambishi-Mufulira Branch Railway Ordinance (No. 4).
Chastell Pension Ordinance (No. 2).
Cigarette Excise and Surtax Ordinance (No. 19).
Companies (Amendment) Ordinance (No. 6).
Customs and Excise Duties Ordinance (No. 18).
Customs and Excise Duties (Amendment) Ordinance (No. 32).
Customs Management (Amendment) Ordinance (No. 38).
Electric Light and Power Ordinance (No. 40).
Explosives (Amendment) Ordinance (No. 30).
European Officers' Pensions (Amendment) Ordinance (No. 35).
General Loan and Inscribed Stock Ordinance (No. 15).
Income Tax (Amendment) Ordinance (No. 14).
Liquor Licensing (Amendment) Ordinance (No. 7).
Liquor Licensing (Amendment) (No. 2), Ordinance (No. 39).
Loan Ordinance (No. 21).
Municipal Corporations (Amendment) Ordinance (No. 27).
Northern Rhodesia Police (Amendment) Ordinance (No. 33).
Penal Code (Amendment) Ordinance (No. 28).
Plant Pests and Diseases Ordinance (No. 16).
Plant Pests and Diseases (Amendment) Ordinance (No. 25).

Police Magistrates (Amendment) Ordinance (No. 10).
Prisons (Amendment) Ordinance (No. 20).
Public Health (Amendment) Ordinance (No. 1).
Quit Rent Redemption and Apportionment Ordinance (No. 34).
Railways (Deviations) Ordinance (No. 22).
Railways (Deviations) (Amendment) Ordinance (No. 24).
Registration of Business Names Ordinance (No. 29).
Registration of Mining Titles (Amendment) Ordinance (No. 8).
Registration of Mining Titles (Amendment) (No. 2) Ordinance (No. 26).
Revised Edition of the Laws (Amendment) Ordinance (No. 9).
Revised Edition of the Laws (Supplemental) Ordinance (No. 31).
Stamp Duty (Amendment) Ordinance (No. 11).
Supplementary Appropriation Ordinance (No. 37).
Town Planning (Amendment) Ordinance (No. 12).
Townships (Amendment) Ordinance (No. 13).
Trustee Investment in Northern Rhodesia Government Securities Ordinance (No. 36).
Veterinary Surgeons (Amendment) Ordinance (No. 5).

Of the substantive Ordinances passed six dealt with financial matters, the more important being the General Loan and Inscribed Stock Ordinance followed by the Loan Ordinance, authorizing the borrowing of a loan of £2,250,000, The Trustee Investment in Northern Rhodesia Government Securities Ordinance, and the Bank Notes and Coinage Ordinance under which Northern Rhodesia abandoned the Gold Standard simultaneously with Southern Rhodesia.

The Customs and Excise Duties were consolidated and amended by the Customs and Excise Duties Ordinance and the Cigarette Excise and Surtax Ordinance.

As regards railways, legislative sanction was given to construct a branch line from Chambishi to Mufulira, and statutory authority was given by the Railways (Deviations) Ordinance to railways to make deviations in existing lines and acquire, compulsorily, land necessary for this purpose.

The Plant Pests and Diseases Ordinance provided powers for the control of plants imported or already within the territory.

Provision was made by the Quit Rent Redemption and Apportionment Ordinance for the redemption of quit rents payable on land in respect of which final title had been issued.

The Registration of Business Names Ordinance provides for the registration of firms which do not disclose the true names of the persons trading under a firm name.

The activities of Boy Scouts and Girl Guides Associations were controlled and their interests protected by the Boy Scouts and Girl Guides Associations Ordinance.

One of the more important Ordinances was the Electric Light and Power Ordinance which was passed after full consideration in Select Committee. Except as regards one or two points, the Ordinance was practically in a form agreed with those more particularly concerned. It is hoped to bring the Ordinance into force at an early date and as soon as the necessary regulations have been published.

Various Ordinances were amended in certain particulars the more important being the Veterinary Surgeons (Amendment) Ordinance whereby other than members of the Royal College of Veterinary Surgeons can be admitted to practise, the Municipal Corporations (Amendment) Ordinance under which the provisions in regard to the amount of rates were altered and more detailed procedure laid down for the imposition of a special rate, and the Customs Management (Amendment) Ordinance whereby provision was made for the introduction of the triptique system.

The subsidiary legislation issued was as follows :—

Government Notices.

Air Navigation (Colonies, Protectorates and Mandated Territories) Order in Council, 1927—
- Customs Aerodromes (No. 35).

Arms and Ammunition Ordinance—
- Arms and Ammunition (Amendment) Rules (No. 66).
- Arms and Ammunition (Amendment) (No. 2) Rules (No. 80).

Brands Ordinance—
- Brands Regulations (No. 50).
- Brands Regulations amended (No. 76).

Cattle Diseases Ordinance—
- Authority to Veterinary Officers and Stock Inspectors under section 4 (No. 42).
- Cattle Diseases (Prohibited Imports) Rules (No. 54).
- Cattle Diseases (Prohibited Imports) Rules amended (No. 100).
- Cattle Diseases Regulations (No. 69).
- Tsetse Fly (Control of Traffic) Regulations (No. 115).

Civil Service Proclamation—
- Civil Servants (Native Employees) Rules (No. 84).
- Civil Servants (Native Employees) Rules amended (No. 117).

Clubs Registration Ordinance—
- Clubs Liquor Regulations (No. 64).

Customs and Excise Duties Ordinance—
- Amendment of Agreement with the Union of South Africa (No. 22).
- Amendment of Annexure of Agreement (No. 145).
- Customs and Excise Duties (Manufacture of Explosives) Regulations (No. 14).
- Customs and Excise Duties (Materials for Extraction of Minerals) Regulations (No. 73).
- Customs and Excise Duties (Air Service Rebate) Regulations (No. 81).
- Customs and Excise Duties (Soap Manufacture) Regulations (No. 89).
- Customs and Excise Duties (Soap Manufacture) Regulations (Amendment) (No. 116).
- Customs and Excise Duties (Settlers Effects) Regulations (No. 99).

Customs Management Ordinance—
- Customs Management (Amendment) Regulations (No. 9).
- Customs Management (Amendment) Regulations (No. 144).

Dairies and Dairy Produce Ordinance—
- Date of commencement (No. 16).
- Dairies and Dairy Produce Regulations (No. 32).

Dangerous Drugs Ordinance—
- Habit-Forming Drugs (Amendment) Regulations (No. 37).

- *Employment of Natives Ordinance*—
  - Employment of Natives Regulations (No. 13).
  - Employment of Natives Regulations amended (No. 136).
- *Europeans Officers' Pensions Ordinance*—
  - List of Pensionable Offices (No. 104).
- *Explosives Ordinance*—
  - Explosives Regulations (No. 150).
  - Appointment of Inspector of Explosives (No. 161).
- *Exportation of Gold and Silver Ordinance*—
  - Gold and Silver Restriction Regulations (No. 132).
- *Extradition and Fugitive Offenders Ordinance*—
  - Application to Foreign States (No. 124).
  - Application to Principality of Monaco (No. 129).
  - Application to Republic of Colombia (No. 21).
- *Forests Ordinance*—
  - Demarcated Forest—Luansia River Area (No. 65).
- *Game Ordinance*—
  - Game Regulations (No. 147).
  - Shooting of Buffalo in Native Reserves (No. 140).
- *High Court Ordinance*—
  - Admission of Legal Practitioners Rules (No. 62).
  - Articled Clerks Rules (No. 61).
  - Sessions of the High Court (No. 60).
  - High Court Rules (No. 56).
  - High Court (District Registry) Rules (No. 57).
  - High Court District Registry, Ndola and Fort Jameson (No. 58).
  - Judicial Committee Rules (No. 92).
  - Under-Sheriffs (No. 59).
- *Immigration Ordinance*—
  - Immigrants (Amendment) Regulations (Repealed) (No. 24).
  - Immigration Regulations (No. 110).
- *Income-tax Ordinance*—
  - Income Tax (Mining) Rules (No. 133).
- *Interpretation Ordinance*—
  - Delegation of powers conferred by the Native Courts Ordinance (No. 149).
- *Lands and Deeds Registry Ordinance*—
  - Lands and Deeds Registry (Amendment) Regulations (No. 29).
  - Lands and Deeds Registry (Amendment) Regulations (No. 79).
- *Liquor Licensing Ordinance*—
  - Liquor Licensing (Amendment) Regulations (No. 28).
  - Liquor Licensing (Amendment) (No. 2) Regulations (No. 43).
  - Liquor Licensing (Amendment) (No. 3) Regulations (No. 138).
  - Liquor Licensing (Amendment) (No. 4) Regulations (No. 167).
- *Lunacy Ordinance*—
  - Central Prisons as places of confinement (No. 114).
- *Magistrates' Courts Ordinance*—
  - Magistrates' Courts Rules (No. 90).
  - Magisterial Districts and Courts (No. 91).
- *Motor Traffic Ordinance*—
  - Examining Officers (No. 7).
  - Motor Traffic (Amendment) Regulations (No. 23).
  - Motor Traffic (Amendment) (No. 2) Regulations (No. 44).
- *Medical Practitioners and Dentists Ordinance*—
  - Medical Practitioners and Dentists—Return of as at 1st January, 1931 (No. 3).

Mining Proclamation—
Mines (Health and Mortality Returns) Regulations (No. 142).
Labour Returns (No. 141).
Mining (Amendment) Regulations (No. 49).
Mining (Amendment) (No. 2) Regulations (No. 72).
Mining (Amendment) (No. 3) Regulations (No. 139).
Mining (Inspection and Regulation) (Amendment) Regulations (No. 77).
Mining (Inspection and Regulation) (No. 2) (Amendment) Regulations (No. 108).
Reserved Area (No. 68).

Registration of Mining Titles Ordinance—
Registration of Mining Titles (Amendment) Rules (No. 30).

Municipal Corporations Ordinance—
Livingstone Native Location Bye-Laws (No. 106).
Livingstone Travelling Fairs Regulations (No. 105).
Livingstone Petroleum (Amendment) Regulations (No. 86).
Livingstone Street Collections Bye-Laws (No. 130).
Livingstone Traffic Bye-Laws (No. 63).
Livingstone Traffic (Amendment) Bye-Laws (No. 131).

Native Beer Ordinance—
Native Beer Regulations (No. 119).

Native Commissioners' Courts Ordinance—
Native Commissioners' Courts (Criminal Appeal) Rules (No. 123).

Native Courts Ordinance—
Delegation of powers to Provincial Commissioners and District Commissioners (No. 149).

Native Grain Trading Ordinance—
Prohibition withdrawn in Kalabo District (No. 41).

Native Registration Ordinance—
Native Registration (Amendment) Rules (No. 20).

Northern Rhodesia (Crown Land and Native Reserves) Order in Council—
Northern Rhodesia (Native Reserves) (Amendment) Order in Council (No. 78).
Northern Rhodesia (Native Reserves) (Amendment) (No. 2) Order in Council (No. 156).
  Native Reserves (Amendment) Regulations (No. 6).
  Native Reserves (Amendment) (No. 2) Regulations (No. 17).

Northern Rhodesia Order in Council—
Northern Rhodesia (Amendment) Order in Council (No. 128).
  Change of name of Chilanga District to Lusaka District (No. 70).
  Change of name of Nalolo District to Senanga District (No. 121).

Colonial Stock Acts Extension (Northern Rhodesia) Order—
Copyright (Federated Malay States) Order, 1931 (No. 103).
Convention concerning Forced or Compulsory Labour (Application to Northern Rhodesia) (No. 127).

Ordinances, Non-Disallowance of—
Nos. 20, 26, 27, 29, 30, 31, 32, 33, 34, 35 of 1930 (No. 22).
Nos. 17, 18, 21, 22, 23, 36, 37, 39 of 1930 (No. 31).
Nos. 19, 24, 25, 28 and 40 of 1930 (No. 38).
Nos. 38 of 1930, 1, 4, 5 and 11 of 1931 (No. 82).
Nos. 6, 7, 8, 9, 10, 16, 19 and 20 of 1931 (No. 88).
Nos. 2, 3, 12, 18 and 22 of 1931 (No. 96).
Nos. 15, 17 and 21 of 1931 (No. 102).
No. 13 of 1931 (No. 109).
No. 14 of 1931 (No. 112).
No. 23 of 1931 (No. 166).

Penal Code—
Date of commencement (No. 118).

Plant Pests and Diseases Ordinance—
Plant Pests and Diseases (Tobacco) Regulations (No. 67).

Police Magistrates Ordinance—
- Declaration of Areas of Jurisdiction of Police Magistrates (No. 48).

Public Health Ordinance—
- Application of section 74 to Livingstone (No. 101).
- Application of section 74 to all townships (No. 93).
- Central Board of Public Health Regulations (No. 27).
- Public Health (Infectious Diseases) Regulations (No. 143).

Public Pounds and Trespass Ordinance—
- Establishment of a pound at Choma (No. 152).
- Establishment of a pound at Livingstone (No. 160).

Railways—
- *Chambishi-Mufulira Branch Railway Ordinance*—
  - Date of commencement (No. 83).

Registration of Business Names Ordinance—
- Division of Territory and places of Registration (No. 168).
- Registration of Business Names Regulations (No. 169).

Roads and Vehicles Ordinance—
- Restriction on use of certain pontoons (No. 15).
- Restrictions on use of roads not to apply to Congo Border Roads No. 3Ka, etc. (No. 46).
- Restriction of Traffic on Great East Road (No. 154).
- Restriction of Traffic on Great East Road (No. 74).
- Restriction of Traffic on District Road 187/Lu (No. 107).
- Restriction of Traffic on Branch Road 205/E.Lu (No. 162).
- Branch Roads—Batoka Province (No. 2).
- Branch Roads—East Luangwa Province (No. 163).
- Main District and Branch Roads—Mweru-Luapula Province (No. 158).
- District Roads—Tanganyika Province (No. 4).

Sessions of the High Court (No. 60).

Telegraphs Ordinance—
- Telegraph Regulations (No. 75).
- Telegraph Regulations Schedule cancelled and republished (No. 98).
- Telephone Regulations, Schedule amended (No. 111).

Theatres and Cinematograph Exhibition Ordinance—
- Films Censorship (Amendment) Regulations (No. 85).

Townships Ordinance—
- Broken Hill Township—
  - (Amendment) Regulations (No. 52).
  - Application of Assessment Regulations (No. 151).
  - (Rating) Regulations (No. 164).
- Broken Hill Mine Township—
  - (Amendment) Regulations (No. 51).
- Bwana Mkubwa Mine Township—
  - Declaration and application of rules (No. 34).
  - Board of Management (No. 39).
- Early Closing Day (No. 113).
- Chilanga—
  - Revocation as a township (No. 71).
- Choma Township—
  - (Amendment) Regulations (No. 146).
- Fort Jameson Township—
  - (Amendment) Regulations (No. 12).
- Kafue Township—
  - Temporary suspension of Rule 1 (36) (No. 97).
- Nalolo—
  - Revocation as a Township (No. 120).

Townships Ordinance—cont.
  Ndola Township—
    (Amendment) Regulations (No. 10).
    (Amendment) (No. 2) Regulations (No. 11).
    (Amendment) (No. 3) Regulations (No. 155).
    Inclusion of Cemetery within Township (No. 135).
    Temporary suspension of Rule 6 (34) (No. 159).
    Application of Assessment Regulations (No. 151).
  Petauke Township (Description of Area) (No. 53).
  Townships (Assessment) Regulations (No. 126).
  Townships (Assessment) Regulations, application to Ndola and Broken Hill (No. 151).
Townships (General) Regulations, 1930—
  Composition of Boards: Ndola, Mazabuka, Lusaka (No. 33).
  Composition of Boards: Fort Jameson, Kasama (No. 40).
Townships (Petroleum) Regulations, 1930—
  Townships (Petroleum) (Amendment) Regulations (No. 47).
  Townships (Travelling Fairs) Regulations (No. 87).
Walamba Township—
  Revocation as a Township (No. 55).
Under-Sheriffs (No. 59).
Visiting Justices (No. 134).
Visiting Justices Livingstone Prison (No. 148).
Volunteer Force Ordinance—
  Repeal of Regulations (No. 45).

CHAPTER XV.

PUBLIC FINANCE AND TAXATION.

The revenue and expenditure for the past six years have been :—

	Revenue.	*Recurrent.*	*Extraordinary.*	*Total Expenditure.*
	£	£	£	£
1926–27	421,035	421,584	33,867	455,451
1927–28	474,683	475,175	43,631	518,806
1928–29	541,606	496,399	28,769	525,168
1929–30	672,289	532,367	22,160	554,527
1930–31	830,254	668,083	36,903	704,986
1931–32	856,376	793,798	26,258	820,056

These figures exclude repayments to the Imperial Exchequer of grants-in-aid received in 1924–5 and 1925–6.

Loan expenditure on capital development, which amounted to £566,801 at 31st March, 1931, reached a total of £1,216,681 at 31st March, 1932, an increase of £649,880 during the year.

The public debt, represented by inscribed stock issued early in 1932 under the Northern Rhodesia 5 per cent. Loan 1950/70, amounted to £1,250,000 at 31st March, 1932.

The assets of the territory as at 31st March, 1932, consisted of :—

	£
Cash	249,840
Investments	19,304
Advances pending the receipt of further loan funds	53,623
Advances pending the receipt of approved grants	12,249
Sundry debtors	20,001
Stores	36,408
	£391,425

Earmarked to meet the following liabilities :—

	£	
Unexpended balance of Loan	31,224	
Due to Savings Bank depositors ...	13,586	
Due to various Postal Administrations	11,243	
Due to Native Reserves Fund ...	7,727	
Due to sundry creditors	26,077	
		89,857
Surplus assets		£301,568

The main heads of taxation and yields during 1931–32 were as follows :—

	£
1. Customs and Excise duties ...	342,017
2. Licences	34,045
3. Native tax	148,263
4. Income-tax	126,567
5. Stamp duties	14,259
	£665,151

For Customs purposes Northern Rhodesia is divided into two zones known as the Congo and Zambezi Basins. The Congo Basin can roughly be taken to be all the territory north of a line drawn on a map of Northern Rhodesia in a south-westerly direction from Fife in the north-east, to the border where the territory joins the south-east corner of the Belgian Congo. The remainder of the territory to the west and the south constitutes the Zambezi Basin. The Zambezi Basin is by far the more important part of the territory industrially, and more than 90 per cent. of the total trade is transacted in this area.

The Zambezi Basin area is subject to Customs Agreements with Southern Rhodesia, the Union of South Africa, and with the British Bechuanaland Protectorate, Basutoland, and Swaziland. The Agreements provide in general for considerable rebates upon interchange of local manufactures, and for the free interchange of raw products with limitations in regard to leaf tobacco.

Under the terms of the Agreement with the Union of South Africa, Northern Rhodesia receives actual duty at Union tariff rates on imported goods ex open stocks, except on certain commodities where the duties are higher in Northern Rhodesia, and upon South African manufactures the Union Government pays the Northern Rhodesia Government 12 per cent. of the export value of foodstuffs and 6 per cent. of the export value of all other manufactures excepting cigarettes, tobacco, ales and beers, wines and spirits. The latter articles are directly taxed at Northern Rhodesia tariff rates subject to the following rebates :—Cigarettes and tobacco manufactures 75 per cent., ales, beers and wines 50 per cent., and spirits 25 per cent. Free interchange of raw products, except maize and maize meal, is provided for, but Northern Rhodesia leaf tobacco exported to the Union is limited to 400,000 lb. per annum free of duty, and similarly Union leaf tobacco exported to Northern Rhodesia is limited to 50,000 lb. per annum free of duty.

Under the provisions of the Agreement with Southern Rhodesia a uniform tariff, as far as possible, is agreed upon, and actual import duty is paid upon removal of imported goods. Free interchange of raw products and manufactures is provided for, except in the case of ales, beers, wines, and spirits, which are taxed at import rates subject to the following rebates—ales, beers, and wines 50 per cent., spirits 25 per cent., cigarettes and tobacco of Southern Rhodesia or Northern Rhodesia manufacture are not liable to import rates upon removal from one territory to the other but are subject to a transferred payment of the appropriate excise duties.

On Union manufactures and imported goods removed from the Union of South Africa to Southern Rhodesia, and which are subsequently removed to Northern Rhodesia, the amount originally received by Southern Rhodesia from the Union Government is paid over to Northern Rhodesia, except on such articles of South African manufacture as are detailed above on which the receiving territory is responsible for collecting the duty.

The Congo Basin part of the territory is within the area defined by the Berlin Conference of 1885, and under the terms of the Convention revising the General Act of Berlin of 26th February, 1885, and the General Act and Declaration of Brussels, 2nd July, 1890, signed at St. Germain-en-Laye, 10th September, 1919, commercial equality within this area must be granted to nationals of the Signatory Powers and those of States Members of the League of Nations which adhere to the Convention; this part of the territory is therefore excluded from the terms of the Customs Agreements mentioned in the preceding paragraph.

British preference is given in the case of the following classes of goods, which are mainly liable to *ad valorem* rates of duty; clothing, blankets, and rugs, cotton piece-goods and all articles mainly imported for household and native use, the duty on British products being 9 per cent. and the duty on foreign products varying from 15 to 25 per cent.; agricultural, electrical, mining and other industrial machinery, pipes and piping, metals and metal manufactures imported for industrial purposes if of British manufacture are free of duty, but if of foreign origin are subject to an *ad valorem* duty of 5 per cent.

Specific rates of duty apply to practically all imported foodstuffs, spirituous liquors, wines, beers, and tobacco. Upon most of the food-stuffs varying rates of British preference from 9 per cent. to 30 per cent. are provided, upon the liquors and tobaccos no preference is provided except under the terms of the Customs Agreements with the neighbouring territories in the south.

The Customs Tariff contains four scales of duty :—

Scale A.—In respect of goods not entitled to preferential treatment.

Scale B.—In respect of goods from the United Kingdom and British Possessions which grant reciprocal privileges provided proof of country of origin is furnished.

Scale C.—In respect of goods from British Colonies, Protectorates, and Possessions which do not reciprocate, subject to proof of origin.

Scale D.—Congo Basin duties :—the tariff of the Congo Basin is limited by the terms of the Congo Basin Treaties. The area comprises all the regions watered by the Congo and its affluents including Lake Tanganyika.

Licence fees are principally derived from trading vehicles, arms, the shooting of game, the sale of liquor, and prospecting of minerals.

The native tax rates and the yields in 1931–32 are as follows :—

	£
Barotse Province (excluding Balovale District)—12s. 6d.	33,957
Barotse Province, Balovale District—7s. 6d.	
Eastern Provinces—10s.	59,468
Western Provinces—12s. 6d.	52,229
Alien Natives—7s 6d., 10s. or 12s. 6d. ...	2,609
	£148,263

The tax is increased automatically by 1s. if not paid within nine months of the date on which it is due. All male natives are liable to pay one tax annually if they have reached eighteen years of age and are not indigent by reason of age, disease, or such other cause as the District Officer may accept. Women and children are not liable and there is no tax on additional huts or on plural wives. Reciprocal arrangements have been made with adjoining British Dependencies whereby natives are exempt from the tax if they have paid an equivalent tax elsewhere for the same year. The persons liable to tax are recorded in registers compiled under the supervision of District Officers. Collection is direct by officials of the Government and not by Native Authorities. Recovery for default is by distress through the Courts. The tax may be accepted in grain or stock at the discretion of the District Officer but the practice is rare. The law does not impose labour in lieu of tax. Thirty per cent. of the Barotse tax is paid to a Trust Fund and applied directly to expenditure on native interests in the Barotse area.

Income-tax on individuals is on a graduated scale commencing at 6d. in the £ for the first £100 of chargeable income and rising to 3s. in each £ in excess of £500. Deductions are allowed of 10 per cent. of earned income (maximum £200) ; £300 personal ; £600 for a wife ; £90 for the first and £60 for other children ; £50 for each dependant, life insurance premiums not exceeding one-sixth of chargeable income. An individual who is a non-resident or not a British subject is eligible for the personal allowance of £300 only.

Company income-tax is at the rate of 3s. in the £.

Stamp duties, denoted by adhesive revenue stamps, are payable on all documents executed or received in the territory. The principal duties are :—

	£	s.	d.
Agreements			6
Bills of Exchange—			
Not exceeding £50			6
Exceeding £50 and not exceeding £100		1	0
Every additional £100		1	0
Cheques			1
Land Grants—			
Not exceeding 10 acres		10	0
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Every additional 1,000 acres	1	0	0
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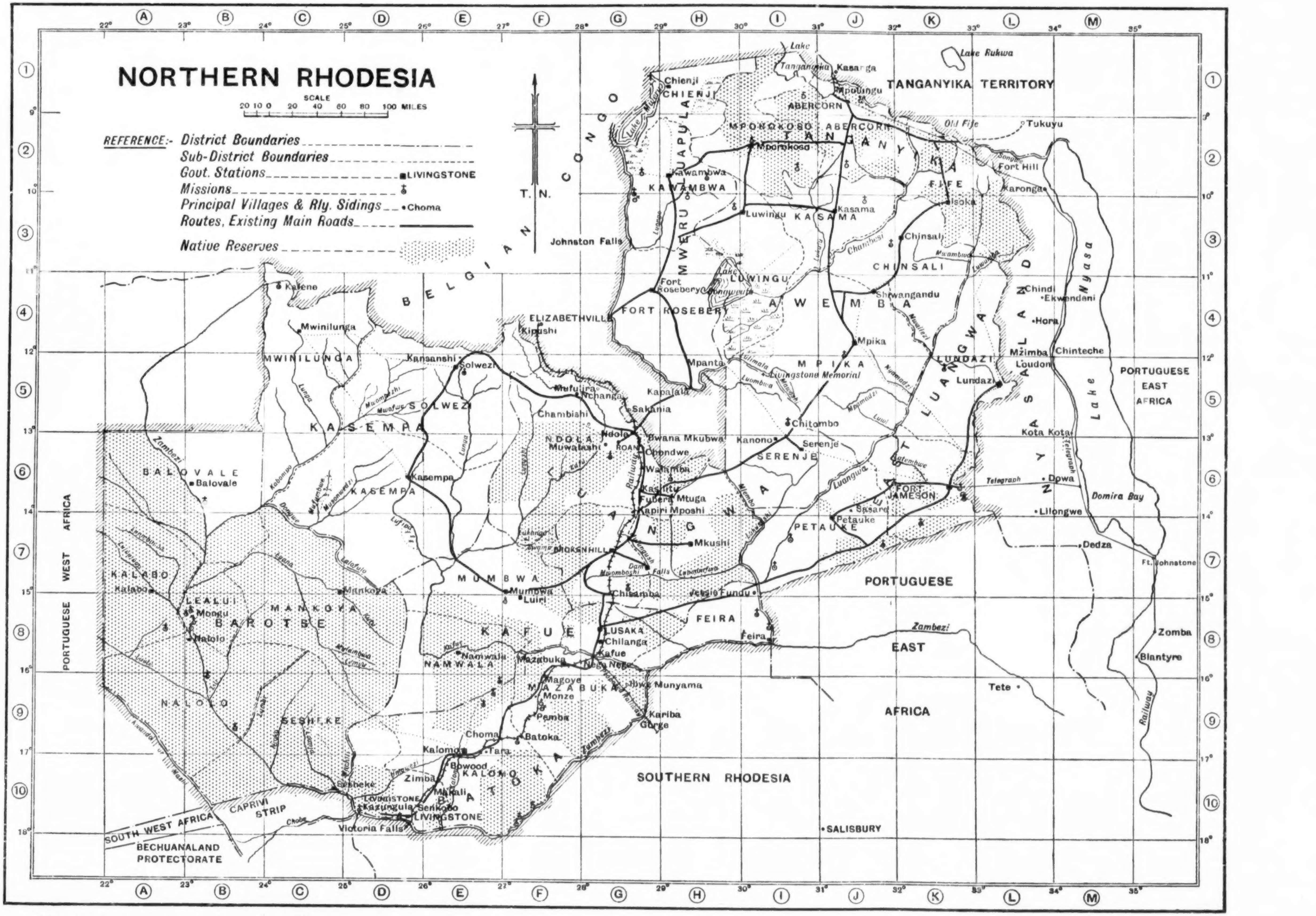
Conveyances—			
Every £50 of value of property sold or conveyed ...		10	0



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No. 1626

ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF

NORTHERN RHODESIA

1932

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I.—GEOGRAPHY, CLIMATE, AND HISTORY.

Geography.

The territory known as the Protectorate of Northern Rhodesia lies between longitudes 22° E. and 33° 33′ E. and between latitudes 8° 15′ S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South-West Africa, comprising in all an area that is computed to be about 288,400 square miles. The River Zambezi forms the greater part of the southern boundary; its two main northern tributaries are the Rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

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History.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown territory. The curtain of obscurity lifts for a moment when we read the diaries of the Portuguese Governor of Sena, Dr. Lacerda, who led an expedition in 1798 from Tete into Kasembe's country, close to the eastern shores of Lake Mweru. He was followed in the early 19th century by two Portuguese traders, Baptista and José, who brought back stories of the great interior kingdom of the Balunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the 16th to the 19th century. Very few historical facts are known about it, but the name of Muati Yamvo, the dynastic title of the Paramount Chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and in 1855 discovered the Victoria Falls, that the civilized world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls were Serpa Pinto, Cameron, Selous, and Arnot.

From the very early days when the hordes of migratory Bantu swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasions from stronger tribes on its borders, so much so, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambezi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time statistics are available of seventy different tribes resident in the territory, of which the most important are the Awemba (113,506), Achewa (77,713), Angoni (53,989), Awisa (41,483) in the Eastern Districts; the Marozi (commonly but incorrectly referred to as Barotse) (65,298), Batonga (78,623), Balenje (38,287), Malovale (61,375), Bakaonde (35,783), Baila (17,339) in the Western Districts; and the Asenga (61,859) and Alunda (75,811) members of which are resident in both Eastern and Western Districts. There are said to be 50 distinct native dialects in use, of which Chiwemba and Chinyanja have been adopted for educational purposes in the Eastern Districts and Chitonga (closely allied to Chila) and Sikololo in the Western. In

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addition to these, Chinyanja is in use as the official language of the police, and is probably the language most generally spoken by Europeans; it is, in reality, a Nyasaland language—the word means "Language of the Lake"—but it is also spoken to some extent round Fort Jameson.

The chief invaders of the early part of the 19th century were the Arabs from the north; the Angoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the territory; and the Makalolo, an offshoot of the Basuto family, who, in the beginning of the 19th century, fought their way from the south through Bechuanaland and across the Zambezi under the noted Chief Sebitoani; they conquered the Batoka, the Masubia, and the Marozi and founded a kingdom which was distinguished by a comparatively high degree of social organization.

The duration of the Makalolo kingdom was short. Soon after the death of Sebitoani, the Marozi rebelled and massacred the Makalolo to a man. The influence of their occupation is still to be seen in the Sikololo language, which is largely spoken amongst the tribes near the Zambezi. The Marozi under Lewanika enlarged their kingdom by conquering one or two of the surrounding tribes, such as the Mankoya and the Malovale. Beyond these limits their authority was both nebulous and ephemeral.

In the year 1891 Lewanika was informed that the protection of Her Majesty's Government had been extended to his country as he had requested that it should be, and on 17th October, 1900, the Barotse Concession was signed by him and his Chiefs and representatives of the Chartered Company. The concession was confirmed in due course by the Secretary of State for the Colonies and under its terms the Company acquired certain trading and mineral rights over the whole of Lewanika's dominion, while the Paramount Chief was to receive, among other advantages, an annual subsidy of £850.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lakes Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in 1893, the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave raiders were occasionally encountered on the north-east boundary, and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavery. This social serfdom was brought to an end by the edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Previous to 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland—North Western Rhodesia Order in Council placed the administration of the western portion of the country by the Company on a firm basis; and this was closely followed by the North-Eastern Rhodesia Order in Council of 1900 with similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924, when, in terms of a settlement arrived at between the Crown and the Company, the administration of the territory was assumed by the Crown, and the first Governor was appointed on 1st April, 1924.

Climate.

There are considerable climatic differences between various parts of the country. The Zambezi, the Luangwa, and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November before the rains break, when the mean maximum is 97° in the Zambezi valley stations and 85° at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90.3° with a mean minimum of 64.5° while the corresponding figures for the four months of the cold season (May to August) are 78.7° and 46.6°.

The following table gives representative temperatures for the territory experienced during 1932:

	Highest mean Max. °F.	*Month.*	*Lowest mean Min. °F.*	*Month.*	*Absolute Max. °F.*	*Month.*	*Absolute Min. °F.*	*Month.*
Livingstone, 3,000 ft. ...	99·1	Oct.	41·2	July	105	Oct.	36	July
Broken Hill Observatory, 3,920 ft. ...	89·3	Oct.	47·0	July	96	Nov.	41·5	July
Chinsali, 4,150 ft. ...	88·5	Oct.	50·0	July	94	Sept.-Oct.	45	June

Highest temperature ... ... 112° Feira.
Lowest ,, ... 28° Mkushi.

The rainy season usually commences in November and lasts until April. Slight showers occur to the north-east of the territory in August and to the north-east and north-west in September. In October the rains begin to spread over the whole territory, reaching a maximum in December.

The intensity of rainfall decreases in January, this falling off appearing to be the nearest approach to the break in the rains, which is characteristic of the two seasonal areas of the central tropical zone.

In February the rains re-establish themselves over the whole of the central area of the territory following much the same contour alignment as in December. In March the zone of heavy rainfall shifts well to the north and east. In April the rains have definitely moved north and in May have practically ceased.

For the season July, 1931–June, 1932 the rainfall for the whole territory was 21 per cent. above normal.

The greatest rainfall recorded in 24 hours was at Kafulafuta Mission, on 3rd February, 1932, and was 5·69 inches.

II.—GOVERNMENT.

Central Administration.

The office of Governor was created by an Order of His Majesty in Council dated 20th February, 1924, and the first Governor assumed his duties on 1st April, 1924.

The Governor is advised by an Executive Council which consists of five members; the Chief Secretary, the Attorney-General, the Treasurer, the Secretary for Native Affairs, and the Director of Medical and Sanitary Services. Provision is also made for the inclusion of extraordinary members on special occasions.

The Order in Council provided that a Legislative Council should be constituted in accordance with the terms of the Northern Rhodesia (Legislative Council) Order in Council, dated 20th February, 1924, to consist of the Governor as President, the members of Executive Council *ex officio*, nominated official members not exceeding four in number, and five elected unofficial members.

In 1929 the number of elected unofficial members was increased to seven consequent upon the very considerable increase in the European population.

Provincial Administration.

For administrative purposes the territory is divided into provinces, each of which is under a Provincial Commissioner responsible for his province to the Governor. The provinces are divided into districts under the charge of District Officers responsible to the Provincial Commissioners.

Native Administration.

In 1929 the Native Authority Ordinance was passed and was subsequently applied as from 1st April, 1930, to all the territory with the exception of Barotseland. Barotseland was exempted from the application of the Ordinance on account of the rights which the Paramount Chief and his Khotla (Judicial and Deliberative Assembly) preserved under the concessions granted to the Chartered Company.

The Ordinance empowers the Governor to appoint in specified areas Native Authorities, consisting of one or more chiefs or other natives, to be responsible for the performance of the obligations imposed upon them by the Ordinance and for the maintenance of order and good government in the area. The Governor also has the power to suspend or dismiss members of such Native Authorities. The duties of the Authorities are clearly defined in the Ordinance which confers upon them power to make rules for certain objects. It is the duty of all natives to assist such Native Authorities in the work of administration.

The system is developing and the work of the Authorities is improving as the Chiefs gain experience.

Native Treasuries have not yet been established, but steps are being taken to educate the Native Authorities in the matter of finance and the administration of public funds.

III.—POPULATION.

The first census of the territory took place on 7th May, 1911, prior to the amalgamation in the same year of North-Eastern and North-Western Rhodesia under the title Northern Rhodesia; the second was held on 3rd May, 1921, and the third on 5th May, 1931.

The following table shows the increase of population since 1911 (the figures for European population for 1931 are census figures whilst all those for African population are taken from the reports of the Secretary for Native Affairs):

Year.	*Europeans.*	*Increase per cent.*	*Africans.*	*Increase per cent.*	*Proportion Africans to one European*
1911	1,497		821,063		548·47
1921	3,634	143	979,704	19	269·59
1931	13,846	381	1,372,235	40	99
1932	10,553	*23·7	1,382,705	·763	131

* Decrease.

The increase in the number of Europeans between 1921 and 1931 was due to the influx which took place during the development of the copper mines in the Ndola District between 1927 and 1931. The mines had nearly completed construction towards the end of the year 1931 and a considerable number of Europeans left the territory in consequence.

The economic depression which set in towards the end of 1931 has been the cause of a further drop of 23·7 per cent. during 1932. The figures given have been collected from the Annual Reports of District Commissioners throughout the territory and may be regarded as being reasonably accurate.

The numbers of Asiatics and non-native coloured persons in the territory at the 1931 census amounted to 176 and 425 respectively.

The African population is now 1,382,705 which shows an increase of 10,470 or ·763 per cent. over the previous year, and its average density through the territory is 4·8 to the square mile. The average birth-rate calculated on statistics taken at 485 villages during

1932 was 60·03 per thousand, and the percentage of infantile mortality was 23·29 (infants under the age of one year).

The European population at 10,553 shows a decrease of 2,293 on 1931, or 16·56 per cent, whilst the death-rate is 11·08, as compared with 15·16 during 1931 and 13·58 during 1930.

Vital Statistics.

	1928.	1929.	1930.	1931.	1932.
Number of deaths ...	97	93	163	210	117
Death-rate per 1,000 ...	12·87	9·32	13·58	15·16	11·08
Deaths of infants under 1 year of age.	15	21	28	28	24
Death-rate per 1,000 of births.	76·92	99·52	102·56	84·08	72·29

Births :—332

The birth-rate was 34·94 per mille as compared with 24·05 in 1931.

Immigration.

Immigrants into Northern Rhodesia in 1932, exclusive of natives, numbered 615, of whom 549 were British subjects. Of the 66 foreign subjects who entered the territory 26 were citizens of the United States of America.

The following comparative figures of immigrants, exclusive of visitors, are indicative of the progress of the territory :—

1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
474	756	1,038	1,066	1,861	3,651	1,702	615

Seventy-four persons, with twenty-seven dependants, were deported, nine being criminals and the remainder either indigent or illiterate. No figures of emigrants are available.

Four hundred and nine destitute persons were repatriated to neighbouring territories and overseas at Government expense.

IV.—HEALTH.

The Government continued to maintain European hospitals at Livingstone, Lusaka, Broken Hill, Bwana Mkubwa, Fort Jameson, Kasama, and Mongu, together with native hospitals at these stations and also at Abercorn, Choma, Mazabuka, Solwezi, Fort Rosebery, and Balovale.

At Livingstone a new and well equipped native hospital was erected during the year, and provides accommodation for Africans which compares favourably with that in hospitals in any part of this continent.

During the year hospitals for Europeans and Africans were erected at Ndola and, it is expected, will be ready for occupation early in the new year. When these hospitals are occupied the temporary hospitals at Bwana Mkubwa will be closed down.

In addition to the above, many Mission doctors, hospitals, and dispensaries receive annual subsidies from the Government for medical work in native areas.

The big mines in the Copper Belt maintain their own medical staff and have provided well equipped hospitals in which they care for their own sick. Europeans and Africans living in the mining areas can obtain treatment in the mine hospitals at fixed charges.

The Railway maintains either full-time or part-time Medical Officers, who give medical attention to the railway staff as required. These Medical Officers are stationed at Livingstone, Lusaka, Broken Hill, and Ndola.

There are a small number of private medical practitioners in the territory.

Government gives subsidies to dental surgeons at Livingstone, Lusaka, Broken Hill, Ndola, and Fort Jameson, for which they are expected to carry out regular inspections of European school children and provide treatment for them at fixed charges. In addition, in return for the subsidies, dental treatment is also given at fixed rates to members of the Northern Rhodesia Police.

Government maintains full-time Medical Officers of Health at Ndola and Livingstone, and Health Inspectors at Lusaka and Ndola. A beginning has thus been made in preventative medical work.

Malaria and Blackwater.—Malaria still remains the chief cause of sickness but regular anti-mosquito measures for combating this disease have been started in and around many of the towns and, in some cases, have already met with considerable success. In Livingstone alone the cases of malaria in Europeans treated at the hospital fell from 219 in 1931 to 124 in 1932.

Anti-mosquito measures are also carried out in the mine towns, and the work done at Luanshya under the advice given by Sir Malcolm Watson of the Ross Institute has proved of very considerable value.

Sleeping Sickness.—The position presents no change, and as very few cases in the affected areas have been reported, it must be considered satisfactory. This disease is limited to certain portions of the territory, and there is no reason why any person avoiding the danger zones need be exposed to this infection.

Cerebro-Spinal Meningitis.—Occurs sporadically and no epidemic occurred.

Rabies.—From time to time during the year the occurrence of rabid dogs, or suspected rabid dogs, was reported; all persons suspected of being in contact with such animals were protected by inoculation.

Smallpox.—During the last few years a large campaign for the vaccination of the native population has been carried out and, although the occurrence of smallpox was reported from different parts of the territory, no epidemic occurred.

Child Welfare.—A European nurse was maintained by the Government during the year for child-welfare work amongst both Europeans and Africans at Livingstone.

With the increase of unemployment in the territory and the rapid rise of a poor white population in the Ndola District it was feared that an increased sickness-rate might occur. Government appointed a Health Sister for welfare work in this area and, so far, her work, together with other preventative measures taken, has maintained the health of the district satisfactorily.

It is hoped to provide a Health Sister to begin welfare work around Lusaka during the new year.

Native Labour.—Owing to the world-wide depression and also owing to the diminished sale for copper, the number of Africans employed by the various mining companies and concessions throughout the territory decreased considerably.

In 1931 the average number of Africans employed on the Copper Belt was 18,307 ; the 1932 figure, however, dropped to 6,929.

The mines are to-day in the happy position of being able to choose their employees.

The death-rate amongst the African employees on the mines fell from 24·6 per thousand in 1931, to 11·8 in 1932.

Medical Work amongst Africans.—The Africans resident in native areas are under the care of the Medical Officers stationed at the more important administrative centres, but up to the present it has not been found possible to begin extensive medical work in these areas. It is hoped that progress will be made when the finances of the country improve.

V.—HOUSING.

European Government Housing.

During the year Government housing programmes were completed at Livingstone, Ndola, Luanshya, and Broken Hill, while work was continued on the first section of the housing scheme for the new capital at Lusaka. Fifteen new houses on the new capital site were nearing completion at the end of the year.

Temporary quarters were erected at Lusaka to house the officers of the Northern Rhodesia Military Police. Generally speaking, the housing accommodation for Government Officials at centres on the line of rail is adequate and satisfactory.

European Non-Government Housing.

A condition of overcrowding and bad sanitation, which was prevalent in 1931 and early in 1932, generally associated with temporary quarters established in connexion with the constructional period in the Copper Belt, has, to a great extent, disappeared.

Major contracting works have been completed in the mining areas and this, coupled with the fact that there has been a considerable decrease in the population, has allowed for the vacation and demolition of many of the more unsatisfactory premises.

The housing of the unemployed still represents a serious problem, particularly in Lusaka where large numbers are living under rather primitive conditions.

The various mining companies completed most of their housing schemes and their European employees are now in a particularly happy position in respect of housing and sanitary accommodation. Generally speaking, the same remarks apply to the housing of railway employees in the larger centres though much remains to be done at some of the smaller stations on the line.

Private enterprise in regard to housing has been more or less at a standstill during the year and there is little to report on this aspect.

The control of development in housing has been a matter of considerable concern to Government, and legislation, in the nature of building regulations, will shortly be applied to the larger centres. Local Councils and Municipalities exercise a certain amount of control and, with the assistance of the legislation already referred to, will ensure that development proceeds on right lines.

Native Housing.

Some progress was made in the beginning of the year with the schemes drawn up for the construction of new native locations and the improvement of existing accommodation in the large townships but shortage of funds has prevented the completion of most of those projects. At Lusaka work was commenced towards the end of the year, under the direction of the Superintendent of the Native Trades School, on the construction of a compound for native servants. Here a new departure has been made which appears to be most satisfactory. The huts are built on a cement-lime foundation with burnt brick walls, sawn timber, and thatched roofs. An outside kitchen is provided for each group of four huts. Septic tanks are a further innovation, the advantages of which have yet to be proved as outcrops of limestone seem likely to obstruct rapid soakage. Permanent barracks have been erected for the native personnel of the Northern Rhodesia Police and are now occupied. These have modern latrines and add greatly to the general comfort and well-being of the askari. Financial difficulties prevented the completion of the African staff quarters, in process of erection at Ndola and Broken Hill. Improvements have been made in the drainage of the railway compound at Livingstone and the substitution of glass for wood in the ventilators of all quarters gives much more light in the huts. The compounds at gangers' cottages along the line are for the most part well-cleared, neat, and tidy. These native quarters are of necessity temporary, but no doubt when all the new deviations have been completed permanent huts for the gangers' staffs will be erected.

Local authorities in the larger centres on the line of rail have also, for economic reasons, been prevented from proceeding with the construction of new native compounds, which, in many instances—notably Ndola and Livingstone—are much overdue.

The mining companies carried out considerable improvements in their native compounds and, generally speaking, it may be said that the African employees on the mines are well accommodated.

The policy of Government is to improve progressively native housing conditions, particularly in urban areas, and plans of compounds showing layouts, types of housing proposed, and sanitary accommodation have to be submitted to Government for approval. In rural areas the situation remains very much the same and the African is more or less restricted to the round hut, though there is already evidence that the more educated Africans are beginning to appreciate the advantages of a better and more sanitary type of house.

VI.—PRODUCTION.

Land and Agriculture.

Of the total approximate area of the territory of 184,576,000 acres, the North Charterland Exploration Company holds a concession over 6,400,040 acres, subject to the assignment of native reserves amounting to 2,148,440 acres. The British South Africa Company owns, subject to the assignment of native reserves of 1,094,475 acres, three freehold areas in the Tanganyika Province, comprising 2,758,400 acres. 2,786,352 acres have been otherwise alienated for purposes of European settlement, not including 84,420 acres of land leased without option to purchase. The total area of alienated land is, therefore, 12,029,212 acres, about 6½ per cent. of the whole territory. Most of the alienated land is used for grazing, some of it is cultivated, but a large area is unsuitable for either grazing or cultivation. The following table illustrates the trend of arable farming since 1923. These figures, and those in other tables, relate only to settlers' holdings; none are available for native production.

Season.	*Maize.* acres.	*Tobacco.* acres.	*Wheat.* acres.	*Total under cultivation.* acres.
1923–24	42,377	3,448	1,250	52,243
1924–25	35,568	4,322	2,633	61,712
1925–26	36,470	4,939	3,387	60,297
1926–27	44,837	6,719	2,780	69,837
1927–28	43,889	7,358	1,734	62,928
1928–29	39,215	3,232	2,572	67,207
1929–30	47,085	3,585	2,095	66,429
1930–31	42,974	2,328	1,594	76,092
1931–32	42,757	2,472	2,261	73,000 (estimated)

The final column includes acreage under minor crops, orchards, and bare fallows.

The 1931/32 season was decidedly favourable and grain crops, both settler and native grown, were exceptionally abundant. The rains commenced early and were better distributed than usual. In the settled areas there was a prolonged drought in January but, as by that time most crops were well forward, this was without serious consequences. The ample rainfall did much to replenish water supplies which, after two dry seasons, had become exceptionally short.

The maize crop was the most abundant yet recorded, both in total production and in yield per acre. The area devoted to maize was very slightly less than that of the previous year, but the yield averaged 6·9 bags per acre as compared with 4·8 in 1930/31 and 4·6 the average of the previous twelve seasons. Statistics of maize production from 1921 onwards are summarized in the following table :—

Year ending 31st December.	*Area in thousands of acres.*	*Average yield in bags per acre.*	*Yield in thousands of bags.*	*Farm consumption in thousands of bags.*	*Surplus available for sale in thousands of bags.*
1920 ...	27	5·2	141	15	126
1921 ...	30	4·9	145	18	127
1922 ...	26	3·8	99	18	81
1923 ...	38	5·2	199	32	167
1924 ...	42	3·1	131	28	103
1925 ...	36	2·7	95	23	72
1926 ...	36	4·9	177	37	140
1927 ...	45	5·6	250	36	214
1928 ...	44	4·2	184	32	152
1929 ...	39	5·1	202	33	169
1930 ...	47	4·3	202	37	165
1931 ...	43	4·5	194	33	161
1932 ...	43	6·9	296	46	250

Wheat is grown exclusively under irrigation, and production is almost entirely confined to the Lusaka District. A considerable increase in acreage occurred and yields were slightly in excess of five bags per acre. The total crop was double that of the previous season. The trend of wheat production is illustrated in the following table :—

Year.	*Acreage*	*Yield in Bags of 200 lb.*	*Average yield per acre.*
1925 ...	2,633	9,895	3·8
1926 ...	3,387	11,687	3·5
1927 ...	2,780	10,586	3·8
1928 ...	1,734	8,512	4·9
1929 ...	2,572	11,838	4·6
1930 ...	2,095	9,583	4·6
1931 ...	1,594	5,627	3·6
1932 ...	2,261	11,373	5·0

Few farmers produced tobacco in the north-western area but there was a slight increase in acreage in the Fort Jameson District. Yields were rather above the average, reaching 480 lb. cured leaf per acre. The total acreage planted was 2,472 and the total production 1,185,415 lb. The crop was exclusively virginian and the bulk of it was flue cured. Some sun cured leaf was produced in portions of the Luangwa Valley.

Minor crops, such as groundnuts, potatoes, sweet potatoes, and pulses are of trivial importance in comparison with maize, wheat, and tobacco. Decreased demand resulted in a decline in market gardening. 457 tons of mixed vegetables were sold locally.

Green manuring has become an established practice on most farms. Sunhemp is most favoured for this purpose but cowpeas are becoming increasingly popular. The total area of green manured land was 8,685 acres, rather less than a quarter of the maize acreage.

The territory continues to obtain the bulk of its fruit requirements from Southern Rhodesia and the Union of South Africa. Deciduous fruit trees are successful only in a few favoured localities but citrus thrives in most parts where irrigation is possible.

The position of settlers is now more difficult than at any time in recent years, though the cause of their present plight is of recent occurrence. The majority of farmers are largely dependent on maize production. Hitherto the territory has not been self-supporting in this staple crop and when low prices have ruled these have been due to competition from Southern Rhodesia and the Union of South Africa. Competition from these sources was eliminated during the year by foot and mouth disease restrictions and customs duties respectively. Even with the rapidly declining demand there was still insufficient locally grown maize until the new crop came on the market in June. Unfortunately the largest crop on record has coincided with the smallest demand for some years and over-production has definitely occurred for the first time. The result has been disastrous to the farming community. Prices have fallen below the cost of production and, what is more serious, there will be little tendency to improvement while the large surplus remains unconsumed. This cannot be exported except at a heavy loss.

Hopes of increased local purchases of tobacco were revived at Fort Jameson last year but these were not realized. Local sales improved towards the end of the season but the position of the majority of planters is still extremely difficult. The scheme of Government assistance to planters has now been withdrawn.

Several of the young coffee estates at Abercorn are now nearing production. The preliminary indications of quality are unquestionably satisfactory. Provided that prices are maintained and that the bushes are capable of sustained yield under local conditions, the infant industry should be quietly prosperous.

The locust campaign was suspended late in February when it became evident that the territory would be re-invaded almost as fast as destruction proceeded. Surprisingly little damage to crops occurred ; even in the most severely affected districts there was no famine. The locally bred swarms of the migratory locust moved across the territory in a general west-south-westerly direction and few remained at the onset of the rains in November. Unfortunately re-invasion from Tanganyika Territory and Portuguese East Africa occurred, the swarms travelling west or south-west. Egg-laying commenced towards the end of the year. Locally bred and invading swarms of the red locust became active in November and extended across the territory from west to east involving all provinces and most districts. Egg-laying commenced in December and the settled area near the railway line was affected for the first time. The situation is now more grave than at any period since the commencement of the invasion, due mainly to the prevalence of the red locust. Considerable damage is inevitable but, in a country like Northern Rhodesia, where the veld is not less attractive than the crops, anything approaching total destruction is exceedingly unlikely.

The territory continues to be free from the major diseases of stock, pleuropneumonia in Barotseland being the one exception. Extension of that disease is guarded against by the maintenance of a strong police cordon along the borders. Loss from such diseases as quarter evil and anthrax has been lessened to a very great extent by prophylactic inoculation and the incidence of these diseases is becoming, year by year, of less economic importance. Practically the whole of the European-owned stock in the settled areas is regularly dipped and this practice is now being extended to native reserves by the provision by Government of dipping tanks in certain areas. The practice was first received with a certain amount of enthusiasm but, owing to one cause or another, there is at the moment a certain amount of apathy on the part of the native cattle owners. This can be attributed largely to lack of personal contact which has resulted from the retrenchment of several Dipping Inspectors previously stationed in native reserves. There is no doubt that in areas where regular dipping has been practised a decided improvement in native-owned stock has taken place.

During the period under review the rainfall has been sufficient to produce good grazing and an adequate supply of water throughout the year.

The general depression, which set in a year or so ago, has had a very serious effect on the marketing of stock. A few years ago, it was not possible for this territory to supply the demand for slaughter stock ; to-day that demand has fallen to less than half the previous requirements and it is extremely difficult to find a market for cattle.

A Livestock Co-operative Society has been formed but it is regretted that it is not obtaining that support from farmers which it deserves. Government has given assistance to this Society and all sales are conducted on a live weight basis over scales erected at certain points on the railway line by Government.

An up-to-date Creamery, in which Government is interested, is being erected at Lusaka and it is hoped that this will be ready to receive cream early in 1933. This, it is confidently expected, will be of the greatest advantage to the farmers of the territory.

Northern Rhodesia remained closed to the importation of slaughter stock from Southern Rhodesia owing to the existence of foot and mouth disease in that territory. Two consignments of breeding stock were, however, imported from the Union of South Africa, being brought in transit through Southern Rhodesia under the immediate supervision of an official of the Northern Rhodesia Government.

Mining.

Producing Mines.

Roan Antelope Mine.—The construction work remaining to be done this year was trifling. Production of blister copper (over 99·4 per cent) was continuous but curtailed in the attempt made, in common with other large producers, to adjust production to consumption. All departments operated without hitch and have gradually increased in efficiency. The smelter has had no difficulty with the high grade matte and, upon modification, dealt economically with the reduced output. The cessation of construction and the curtailment of production had the effect of reducing labour figures to 380 Europeans and 2,344 Africans at the end of the year. Native labour efficiency has improved from 3·21 tons of ore extracted per native shift underground to 4·85 tons. Health conditions were strikingly improved. Overall costs have been reduced to £23 per ton of copper, a surprisingly low figure in any event but particularly so in view of the restricted output.

Nkana Mine.—The concentrator was quite ready and in operation at the year's beginning and the smelter went into commission on 20th March. Underground development went ahead rapidly and by June 3,000 tons were hauled daily to the surface.

The mine produced 872,000 tons of ore assaying 5 per cent during the year ; the concentrator handled 980,000 tons (mine, dump, Mufulira and Nchanga) for the production of concentrates of 55 per cent copper, and the smelter produced 38,350 tons of blister copper at 99·36 per cent. The end of construction in May resulted in the discharge of a large number of employees so that there remained in December but 391 Europeans and 2,153 Africans. Labour supplies were plentiful ; efficiency and health improved very considerably ; costs have been falling and have now reached

£20 per ton copper, an astonishingly low figure which is bringing this producer right to the front.

Broken Hill Mine.—30,906 tons of laterite carrying 3 per cent vanadium pentoxide were mined from six different localities but largely from the Northwest Incline No. 1, Kopje Mine ; much lower grade laterite and zinc silicate ore were encountered and stacked at the same time. For this 28,000 tons of overburden and dolomite were thrown out. Zinc silicate and lead-zinc sulphide orebodies previously have been encountered and much progress made towards better understanding of the trend of the orebodies and means of mining without risk of danger or dilution. At least five years' supply of zinc silicate is ensured for the plant and the total of ore reserves is taken as the same as last year, viz. 1,567,000 tons.

The power plant is in excellent condition ; labour figures rose at the end of the year, on account of preparations for zinc production during 1933, to 151 Europeans and 1,110 Africans. Health has improved wonderfully.

The Camarnor vanadium and Iron Duke pyrite properties are now being acquired.

Dunrobin Mine (Luiri Gold Areas Ltd.)—For the first six months Dunrobin ore was being treated at the Matala plant at the rate of 1,500 tons a month but values could not be followed further owing to inadequate pumping facilities. A prospecting campaign was then substituted but, with the time and money available, no new and striking orebody was discovered. Work was entirely suspended in December.

New Jessie Mine produced throughout the year with varying fortunes. Costs are low and values are being followed wherever they may lead without unduly heavy pumping charges. Other similar reefs on the property owned by the company (New Jessie Gold Mining (Prop.) Ltd.) may be attacked if the Jessie D.B. reef gives out. An average of four Europeans and 155 Africans have been employed.

The Sasare West Mine, Petauke District, was discovered by Mr. J. A. Cowie last year and has been worked on tribute from the North Charterland Exploration Co. (1910) Ltd. throughout the year with some success. A two-stamp mill is being put up.

Developing Mines.

Mufulira, Chambishi, Nchanga, and Bwana Mkubwa have been maintained on a shut-down basis during the year.

Kansanshi Mine has now concluded its drilling programme. This mine, managed by the Sir Roberts Williams Company, is prepared to take steps towards the actual production of copper and gold when economic conditions become suitable. The Garenda copper deposit in the Kafue Province was examined.

Prospecting.

Rhokana Concessions (Rhodesian Congo Border Concession and Nkana Concession), Loangwa Concessions, and Rhodesia Minerals Concessions were all systematically prospected as usual by traversing and by potholing, trenching, and drilling at interesting points but on a somewhat reduced scale. Interesting structural and economic information was obtained, correlated, and reviewed.

Approximately 30 geologists have been actively engaged in the traversing and mapping of some 14,000 square miles in these concessions. A noteworthy deposit of graphite, about 60 miles east of Broken Hill, has been examined and found to be of considerable potential value.

North Charterland Exploration Co. (1910) Ltd. have been permitting a few prospectors to operate in their concession on condition they work only under tributing agreement agreed to by their Board. Two discoveries of gold have been made.

General.

Economic conditions had no adverse effect in checking the full and healthy growth of the two large copper mines; their output and working costs figures being evidence of a sufficiently striking character. A further slowing down of business and mining activity in the direction of discovery, development, and equipment was, however, noticeable.

Copper production has been artificially restricted by agreement between the main world producers, during the whole year to but a small fraction of the capacity of these mines in the common attempt to assist prices for the copper industry as a whole. The restriction agreement lapsed at the end of the year and was not renewed. Whilst the world copper situation is complex, the progress made by the copper mines in this territory leaves no room whatever for doubt as to their future success and but little as to the near future of developing companies. A steady improvement is expected in the prices of zinc, vanadium, and lead which should have the desired effect for the remaining large producer. For new mines of any size results from the concession companies are awaited.

Mineral Production.

The following table shows the mineral production during 1932 :—

		£	s.	d.
Gold ...	... 6,349·18 oz. ...	26,969	10	0
Silver ...	... 338·68 oz. ...	25	12	0
Copper	... 67,887·19 tons ...	2,095,214	16	0
Vanadium	... 676,806 lb. ...	439,923	18	0
Iron Ore	... 711·00 tons ...	355	10	0
		£2,562,489	6	0

The total value of the minerals produced in 1931 was £1,258,671. The large increase in 1932 is almost entirely accounted for by the increase in copper production.

VII.—COMMERCE.

The value of merchandise imported during the year under review amounted to £1,864,902, as against £5,140,548 in 1931, a decrease of £3,275,646 or 63·7 per cent. In addition, Government stores to the value of £69,058 and specie to the value of £25,595 were imported.

The total exports of merchandise were valued at £2,675,248 as compared with £1,178,515 in 1931, an increase of £1,496,733 or 127·0 per cent. In addition, specie to the value of £30,437 was exported.

The great drop in imports reflects the serious effects of the trade depression upon the territory during the past year, but the decrease in trade as compared with 1931 is greatly accentuated by the fact that practically no construction took place in the mining area during the year; the principal class of imports affected being the metal manufactures and machinery class, the value dropping from £2,504,339 in 1931 to £389,565 in 1932. Plant and other capital goods for the mines were imported continuously during the five years ending 1931 and a stage has now been reached which assures the means of production of copper in very large quantities. In consequence the diminution of imports of this nature was to be expected, and this trade, which has greatly inflated imports in recent years, was abnormal and explains the very great fall in the volume of imports in the year under review.

It will be seen in the tables given in subsequent paragraphs that decreases are also general throughout the remaining classes of goods imported; foodstuffs, textiles, liquors, tobacco, are all considerably below the figures for the previous year. Here again the cessation of construction in the mining area, with the consequent retrenchment of both European and African labour, was indirectly the cause.

The export trade is almost entirely dependent upon minerals and the increase in the value of exports in 1932 reflects the increase in copper produced.

The trade balance is in favour of exports to the extent of £810,346 whereas in the previous year (1931) the balance was in favour of imports by £3,962,033. This change over is also due to the increased copper production and to the cessation of construction.

The following figures show the value of imports of merchandise and the value of exports—excluding specie—for the past ten years :—

Year.	*Imports.*	*Exports.*
	£	£
1923 ...	502,002	461,807
1924 ...	662,642	454,057
1925 ...	1,284,025	432,997
1926 ...	1,667,584	484,382
1927 ...	1,957,138	755,525
1928 ...	2,366,317	847,068
1929 ...	3,602,417	899,736
1930 ...	4,862,722	885,976
1931 ...	5,140,548	1,178,515
1932 ...	1,864,902	2,675,248

Imports.

The following summary furnishes a comparison of the value of imported merchandise, during the years 1930 to 1932, which originated from British and from foreign countries :—

Imports from :	1932	1931	1930
	£	£	£
Union of South Africa	395,018	854,635	543,328
Southern Rhodesia	328,959	517,327	656,961
United Kingdom and other British Possessions	670,465	2,423,617	2,197,416
Total British Empire	1,394,442	3,795,579	3,397,705
Foreign Countries	470,460	1,344,969	1,465,017
Total Merchandise	£1,864,902	£5,140,548	£4,862,722

For the purpose of illustrating the routes of trade, the following table shows the value of merchandise received from the Union of South Africa, from Southern Rhodesia, and directly from overseas during the years 1930 to 1932 :—

Imports from :	1932	1931	1930
	£	£	£
Union of South Africa	451,144	1,467,722	947,026
Southern Rhodesia	914,537	1,483,074	2,101,016
Imported from Overseas	499,221	2,189,752	1,814,680
Total	£1,864,902	£5,140,548	£4,862,722

The following table illustrates the comparative value of the principal classes of imports during the years 1929 to 1932 :—

	1932	1931	1930	1929
	£	£	£	£
Animals (living) ...	29,036	68,315	71,032	27,668
Foodstuffs, etc. ...	262,221	468,297	457,870	302,675
Ales, Spirits, Wines, etc. (potable) ...	84,456	145,686	174,504	108,888
Spirits (non-potable)	1,552	4,564	2,032	1,344
Tobacco	61,622	92,124	88,203	59,336
Textiles, Apparel, Yarns, Fibres ...	319,835	579,192	609,741	592,442
Metals, Metal Manufactures, Machinery and Vehicles ...	389,565	2,504,339	2,206,841	1,595,084
Minerals, Earthenware, Glasses and Cement	132,251	257,910	304,207	205,014
Oils, Waxes, Resins, Paints, and Varnishes	142,811	244,379	286,951	184,021
Drugs, Chemicals and Fertilizers	52,828	91,623	87,920	80,256
Leather, Rubber and manufactures thereof	58,998	133,080	117,628	87,907
Wood, Cane, Wicker and manufactures thereof	51,493	152,421	208,427	152,851
Books, Paper, and Stationery	36,260	71,294	62,415	52,967
Jewellery, Timepieces, Fancy Goods, etc.	29,778	59,804	63,546	49,959
Miscellaneous ...	212,196	267,520	121,405	102,005
Total imports ...	£1,864,902	£5,140,548	£4,862,722	£3,602,417

Exports.

The following table shows the value of the total exports during the years 1930 to 1932 :—

	1932	1931	1930
	£	£	£
Domestic exports	2,436,170	988,441	768,848
Imported goods re-exported ...	239,078	187,030	108,147
Articles exported through the post...	included in above.	3,044	8,981
Total merchandise exported ...	£2,675,248	£1,178,515	£885,976
Specie	30,437	30,430	23,565
Grand Total	£2,705,685	£1,208,945	£909,541

The following summary furnishes a comparison of the value of exports to the Union, to Southern Rhodesia, to the United Kingdom, to other British Possessions, and to foreign countries, distinguishing domestic exports and imported goods re-exported, during the years 1930 to 1932 (excluding articles exported through the post and specie for the years 1930 and 1931) :—

Domestic Exports.	1932	1931	1930
	£	£	£
Union of South Africa	29,300	57,527	54,230
Southern Rhodesia	31,544	30,182	19,112
United Kingdom and other British Possessions	778,024	323,884	539,705
Foreign Countries	1,597,302	576,848	155,801
Total Domestic Exports	£2,436,170	£988,441	£768,848
Imported Goods Re-Exported.	£	£	£
Union of South Africa	74,881	73,685	16,459
Southern Rhodesia	124,108	80,989	66,676
United Kingdom and other British Possessions	7,504	3,470	17,004
Foreign Countries	32,585	28,886	8,008
Total Imported Goods re-exported	£239,078	£187,030	£108,147

The following table illustrates the comparative value of the principal items of domestic exports for the years 1929 to 1932 :—

	1932	1931	1930	1929
	£	£	£	£
Animals (living)	11,793	18,913	2,458	8,928
Hides, Skins and Horns	8,725	19,807	13,486	39,165
Ivory	2,305	3,309	3,883	8,922
Butter	78	429	76	551
Wheat	6,652	1,451	2,870	13,855
Maize, including other cereals in the grain	1,006	18,031	16,545	25,567
Maize meal	1,034	6,173	4,818	17,781
Pulse	44	211	667	1,040
Tobacco (unmanufactured)	39,209	33,346	57,163	70,310
Cotton (raw)	280	—	5	158
Copper (all kinds)	2,087,620	505,204	226,382	236,716
Lead	—	—	—	37,729
Vanadium	32,266	17,871	24,710	16,389
Vanadic Oxide (fused)	164,752	73,760	—	—
Other ores	—	—	14,352	34,904
Zinc	1,088	200,675	341,660	262,611
Gold	41,277	35,390	26,511	3,441
Silver	66	58	48	12
Lime	1,294	866	930	940
Wood, manufactured and partly manufactured	23,414	29,937	17,053	20,316

Note.—1931 figures amended to include Congo Basin trade.

VIII.—WAGES AND COST OF LIVING.

The labour position, which at the end of 1931 had begun to give cause for some anxiety, became acute during 1932. At the end of the year the number of Africans in employment amounted to about 42,000, as compared with approximately 79,000 in 1931, and there was a tendency towards a drop in the wages offered for the work available. The difficulties of the situation were enhanced by the coincidence of the termination of the normal construction period of the mines with the full impact on this territory of the world depression. It is thought, however, that the limit has now been reached as far as reduction on the mines is concerned and that slight increases in the number of Africans employed may be expected. A comparison of the figures for 1931 with those for 1932 reveals that the greatest decreases in the numbers employed took place in building, mining, domestic service, manufacture, and agriculture—in that order. There was a drop of 82 per cent in the number employed on building and a 45 per cent reduction in those engaged in domestic service. Agriculture in 1932 provided employment for 39 per cent less than in 1931 and employment in the Government and on the railways dropped by 30 per cent and 24 per cent respectively. It follows that all sections of the native community have suffered.

In the circumstances it is not surprising that the enrolment of labour by the various recruiting organizations has come to a standstill and that the supply of applicants for employment available is much greater than the demand. A certain number still proceed to other territories under the aegis of the Rhodesian Native Labour Bureau and find employment on the roads, railways, mines, and in domestic service. In this sphere, too, considerable numbers go in search of work on their own.

As the years go on and experience is obtained it becomes more possible to assess the reaction of industrial employment upon the social life of the people and upon the tribal system. It has been observed that the flow of labour is seasonal and the supply fluctuates on parallel lines from month to month ; the greater number turn out in the lean months when the food supply in the villages is running low, and return in the months of plenty.

It is difficult to estimate the effect of the economic depression on the native community. The people in the reserves and native areas are self-supporting and do not suffer from the discomforts and privations which follow lean years in highly industrialized communities. The possession of money is not yet a very vital matter to the bulk of the African population of this territory because, once the tax obligation has been discharged, any balance of funds is generally expended on the acquisition of simple luxuries which can be eliminated without hardship when times are difficult. Africans in employment receive, in addition to their pay, either an allowance in lieu of rations or a liberal supply of food in accordance with a scale laid down by law. The staple food of the African is meal obtained from cereals. The cost of the minimum monthly ration, i.e., 60 lb. is (*a*) in towns 4s. 6d. to 5s. 6d.; (*b*) in country districts 3s. to 4s. A ration of meat and vegetables is provided and costs about 4s. per month per head. Those in the reserves and in remote areas can grow sufficient food for their needs. Wages for Africans have not appreciably altered but there is a tendency towards a lower limit which, in the case of manual labour, has been reduced from 12s. 6d. and 10s. to 10s. and 7s. 6d.

Wages range as follows :—

Clerks : from £2 to £7 per month.

Artisans : from £2 to £6 per month.

Labourers : Mines, surface, from 17s. 6d. to 22s. 6d. per month.
Mines, underground, from 30s. to 37s. 6d. per month.
Agricultural, 10s. to 17s. 6d. per month.
Railways, 12s. 6d. to £1 per month.
Roads, 12s. 6d. to £1 per month.

The cost of living for Europeans is governed mainly by the cost of transport. Transport charges, even in the case of places on the railway, add considerably to the price of commodities. When transport by motor or other means is necessary, as it is in the case of places off the line of rail, the average price is still further increased.

The average price of various commodities is as follows :—

	Average.	
	s.	*d.*
Bread, per lb. loaf		8
Local flour (1st grade), per lb.		7½
Patna rice, per lb.		7
Mazawattee tea, per lb.	3	11
Sugar (white granulated), per lb.		7¾
Coffee (av. loose and tinned), per lb.	2	7
Butter, per lb.	3	0
Bacon, per lb.	2	7
Eggs (European farms), per doz.	2	8
Eggs (native), per doz.	1	0
Milk, per pint		4
Beef, per lb.		9½
Soap (Sunlight), per packet	2	3
Kerosene, tin of 4 gallons	17	5
Motor spirit (Shell), per gallon	3	6

The cost of clothing is approximately 75 per cent. higher than European prices.

IX.—EDUCATION AND WELFARE INSTITUTIONS.

For the education of European children there were, in 1932, controlled schools at Livingstone, Choma, Mazabuka, Lusaka, Broken Hill, Bwana Mkubwa, Ndola, Luanshya and Nkana offering primary education up to Standard VII, with the additional subjects Latin, French and Algebra in Standards VI and VII and Geometry in Standard VII. There were schools at Tara, Silver Rest, and Fort Jameson offering primary education up to Standard V. All these schools were under Government management, the tuition fees varying from 7s. 6d. to £1 17s. 6d. per quarter. The Convent School, Broken Hill, offering education up to the standard of the Southern Rhodesia Junior Certificate Examination, and Chiposa School, Fort Jameson, and the Mulendema School, offering primary education up to Standard V, are controlled schools but under private management. A number of small uncontrolled schools were also open during the year.

Boarding accommodation was available for girls at the Beit School, Choma ; for boys at the Codrington School, Mazabuka, the boarding fees being £12 10s. per quarter, and for boys and girls at Lusaka School, the boarding fees being £9 per quarter, all three being under Government management, and at the Convent School, Broken Hill, and Chiposa School, Fort Jameson, both under private management.

Fifty-four teachers were employed in the controlled schools under Government management, the enrolment at the end of 1932 being 972, a decrease of 36 compared with the 1931 figure. In addition, 92 children were attending controlled schools under private management and 38 children were receiving education through the Southern Rhodesia Correspondence Classes.

The Beit Hostel at Lusaka, the cost of which was met from money generously provided by the Beit Railway Trust, was completed and occupied, and a new school building at Nkana acquired at the beginning of the year.

Education for natives in Northern Rhodesia is still mainly provided through the agency of Mission Societies. These, however, receive financial support from Government and professional guidance from the inspecting officers of the Native Education Department.

Seventeen of the Mission Societies operating in the country maintain village elementary schools, boys' and girls' boarding schools, and teacher training institutions recognized as eligible for Government grants. A total sum of £13,820 was directly distributed amongst them in recurrent grants during the financial year 1932–3. This amount included a grant of £1,000 from the Beit Railway Trustees, £250 from the Carnegie Corporation, and £1,820 from the Barotse National Fund, the latter grant being distributed among three societies carrying on educational work in Barotseland.

Recurrent expenditure on native education during the financial year 1932–3 amounted to :

	£
From Government Revenue	18,900
Beit Railway Trust	2,000
Carnegie Corporation	1,000
Barotse Trust Fund	11,425
Total	£33,325

Since the year 1929 the sum of £13,700 generously granted by the Beit Railway Trustees has been spent on building and equipping the Jeanes, Normal and Middle-Elementary Schools at Mazabuka. Buildings to the value of £1,206 were erected during the year for the Middle-Elementary School at Kasama. The amount was found from Loan Funds, and £2,250 was appropriated from the same source for the commencement of the Native Trades School at Lusaka. A further sum of £1,740 has been granted to Mission Societies for school buildings.

Owing to the growth of an inspectorate during the last few years, it is becoming possible to carry out more frequent inspections and to ensure that the monies paid by Government are being utilized satisfactorily, and that a steady improvement in the standard of education is being maintained.

Seventy-one African teachers passed the written part of the Government Certificate Examination during the year. There are now 373 natives who have passed the written section of the examination and 253 who have been given certificates after inspection of their practical work.

Three hundred and seventeen youths are now attending teacher training courses in normal schools, or are in middle schools preparatory to entering definite training courses. Annual returns, however, show that Government and Mission Societies employed on 31st December, 1932, some 2,261 teachers in 2,376 schools and sub-grade schools. The majority of these teachers must be classed as catechists or evangelists in charge of so-called " bush " schools, and have never had an adequate course of professional training.

Four hundred and twenty-five certificated teachers were in the service of Missions at the end of the year and qualified for the Government grant-in-aid.

One hundred and fifty European teachers and thirty-one European Technical Instructors were engaged in native education during the year.

Seventeen Europeans and twenty African teachers and instructors including the staff of the Barotse National School, comprised the staff of the Native Education Department.

Returns, which must be regarded as approximate, show that 14,214 boys and 5,874 girls attended "recognized" schools, while roughly 28,000 boys and 27,000 girls attended "sub-grade" schools. Five hundred pupils are at present attending Government elementary and middle schools including the Barotse National School which is maintained entirely by the Barotse National Trust Fund. It is estimated that there are about 250,000 children of school age in Northern Rhodesia.

The foregoing figures give some idea of the magnitude of the task of improving the standard of village elementary education to which Government and Mission Societies are devoting themselves. It is hoped that the Jeanes Training School, established by Government at Mazabuka, will be an important and effective agent in the work. At present there are twenty-one selected Mission Teachers being trained as "Jeanes" teachers. Their wives also receive training in hygiene, child-welfare, and domestic subjects such as cooking, sewing, etc.

At Mbereshi (London Missionary Society) women teachers are being trained along "Jeanes" lines. A grant of £500 per year is given towards the cost of their training; half being borne by Government and half by the Carnegie Corporation. There are twenty girls' boarding schools subsidized by Government, with an enrolment of approximately 500 pupils. Domestic and vocational training is an important feature of the curricula of these girls' schools.

Boys receive training as carpenters, masons, and bricklayers at the Barotse National School at Mbereshi (London Missionary Society) and, to a lesser degree, at several other Mission stations. Government is establishing a Trade School for the training of carpenters, masons, and bricklayers at Lusaka.

Government has also established an elementary and middle boarding school for boys at Mazabuka and elementary mixed schools at Ndola and Kasama. The Government Normal School at Mazabuka trains teachers for Government requirements and for the smaller Missions which have no training schools of their own.

The proportion of Government expenditure on native education to the total expenditure of the territory was 3·14 per cent; the amount spent by Government per head of native population on native education was approximately 3¼d. but it must be borne in mind that much the greater part of native education is carried out by the various Missions, and it is impossible to compute with any accuracy what their educational services represent in terms of monetary expenditure. If it were possible to arrive at such a sum, the figure of 3¼d. given above would be very largely increased.

X.—COMMUNICATIONS AND TRANSPORT.

Railways.

The railway from Southern Rhodesia via the Victoria Falls to the Belgian Congo passes through north-western Rhodesia. Two mail trains, to which dining cars are attached, run each week in each direction. There is, in addition, one train per day, Mondays excepted, in each direction between Livingstone and Ndola. No dining car is attached to this train, but it stops at certain places sufficiently long for passengers to take a meal at the local hotel. Second-class accommodation only is provided on this train. All mail trains carry first- and second-class passengers and sleeping accommodation is provided.

Transport to stations in the Barotse Valley is by barge along the Zambezi River, but for rapid transport light aeroplanes are now being used to Mongu, where there is a Government aerodrome. There is no sleeping accommodation on the barges which are tied for the night whilst travellers camp on land.

Roads.

The roads of the territory are earth roads with the exception of the portion of the Great North Road which runs from the Victoria Falls to Livingstone—a distance of some eight miles, which is bitumen surfaced.

The arterial road system consists of three main routes, viz., the Great North Road from Livingstone, which runs adjacent to the railway as far as Kapiri Mposhi— 460 miles—where it turns north-east to Abercorn and Mpulungu on Lake Tanganyika—a total distance of 982 miles. The principal towns and Government stations on this route are Kalomo, Choma, Mazabuka, Lusaka, Broken Hill, Mpika, Kasama, and Abercorn. At Mpulungu the Lake Steamer connects with Kigoma on the Tanganyika Railway.

The Congo Boarder Road branches off from Kapiri Mposhi and traverses the Copper Belt ; Bwana Mkubwa, Ndola, Nkana, Nchanga and Solwezi being the principal towns passed *en route*. From Solwezi this road turns south and passing through Kasempa and Mumbwa joins the Great North Road again 45 miles south of Broken Hill. The length of the Congo Border Road is 650 miles.

The Great East Road leaves the Great North Road at Lusaka and proceeds to Fort Jameson and the Nyasaland border where it connects up with the Nyasaland road system. The distance to Fort Jameson is 384 miles and this town is 12 miles from the Nyasaland border.

In addition to the above main routes, 4,900 miles of secondary roads connect the settled areas and Government stations throughout the territory.

The roads generally are passable for traffic during nine months of the year, but during the rainy season from December to April traffic is restricted to 5,000 lb. gross loading.

The arterial roads have now been bridged and culverted with permanent structures for about 75 per cent of their lengths, and the Beit Trust have provided a bridge 800 ft. in length over the Luangwa River on the Great East Road which will be open to traffic this year. Waterways on all other roads are crossed by means of bush timber bridges and culverts. Major rivers are crossed by pontoons for the use of which Government charges a moderate fee.

Travellers can be accommodated at hotels and rest houses at suitable points on all the arterial road systems.

Postal.

The following statistical table shows a triennial comparison of correspondence dealt with.

Received.

	1932	1931	1930
Letters	2,541,422	3,472,612	3,413,164
Post Cards	47,684	83,554	50,792
Newspapers	1,266,226	916,764	884,416
Bookpackets		831,376	680,132
Parcels	50,216	67,184	91,208
Registered articles	72,982	91,676	85,072
	3,978,530	5,463,166	5,204,784

Despatched.

	1932	1931	1930
Letters	2,436,070	3,292,220	3,117,984
Post Cards	59,852	80,500	53,600
Newspapers	480,610	169,728	117,156
Bookpackets		416,052	227,064
Parcels	80,694	19,760	17,940
Registered articles	13,104	123,604	121,420
	3,070,330	4,101,864	3,655,164

The volume of undelivered correspondence dealt with in the Returned Letter Office was 27,369 compared with 29,237 in 1931.

Business transacted during the year decreased considerably as compared with the previous year, as shown in the appended Table.

	1932.	1931.	1930.
	£	£	£
Stamps sold	21,331	22,723	24,397
Money Orders issued ...	32,056	74,967	82,298
Postal Orders issued ...	33,886	47,715	39,453
	65,942	122,682	121,751
Money Orders paid	29,774	31,409	22,380
Postal Orders paid ...	10,910	16,330	14,240
	40,684	47,739	36,620
TOTAL	106,626	170,421	158,371

"Cash-on-delivery" parcels.

	1932.	1931.	1930.
Number	7,803	8,436	5,502
Value	£19,111	£22,904	£17,442
Average value per parcel ...	£2·4	£2·7	£3·1

Telegraphs.

The main telegraph route runs beside the railway from the Victoria Falls Bridge to the Congo Border, with branches from Ndola to Luanshya, Ndola to Nchanga, Ndola to Nkana thence to Mufulira. Fort Jameson is connected with the Nyasaland system; Kasama and Abercorn with the Nyasaland and Tanganyika systems.

The volume and value of traffic handled was as follows :—

	1932	1931.	1930.
Forwarded—			
Paid telegrams	65,534	103,495	99,489
Official telegrams	22,336	23,218	15,473
Number of words	1,097,094	1,648,791	1,689,142
Delivered	77,826	110,800	99,196
Re-transmissions	248,272	400,726	324,546
Nett revenue	£9,621	£16,084	£17,110

Telephones.

An automatic telephone exchange was opened at Broken Hill and a magneto ringing exchange at Mazabuka in September. In addition, there are automatic telephone exchanges at Livingstone and Ndola. All exchanges functioned satisfactorily. Licensed exchanges are operated at the Roan Antelope, Nkana, Bwana Mkubwa, and Broken Hill mines by the respective mining companies. The foregoing are connected with the Post Office trunk telephone system, which was completed during the year except for the installation of repeater apparatus which will shortly be delivered.

Revenue.

	1932. £	1931. £	1930. £
Exchange rentals	3,332	1,521	920
Call office and trunk fees ...	941	277	127
Miscellaneous	12	—	—
	£4,285	£1,798	£1,047

Wireless.

(a) *Aeronautical Services.*

Aeronautical wireless stations have been installed at Mpika and Broken Hill for radio-electrical services principally in connexion with the Imperial Airways Cape to Cairo Air Route. Both are equipped for point to point communication by means of short-wave emissions and for communication with aircraft in flight, on a wave length of 900 metres.

(b) *Internal and International Services.*

In addition to aeronautical radio-electrical services, Broken Hill and Mpika maintain a public service, as Mpika is otherwise isolated. Short-wave stations have been installed at Livingstone, Mongu, and Fort Jameson and a station at Abercorn is now in course of erection.

International communication is maintained by Broken Hill with the contiguous territories of Tanganyika, Southern Rhodesia, and the Union of South Africa.

Revenue is included in telegraph revenue.

Civil Aviation.

Considerable strides have been made in civil aviation during the year. The Imperial Airways, Limited, inaugurated a weekly service between Cairo and Capetown in January and have continued to operate successfully throughout the year. Apart from a forced landing near Broken Hill at the outset of the service, Imperial Airways have flown to schedule and there have been no accidents.

Extensions and improvements were carried out on the majority of aerodromes and, in addition, four emergency landing grounds were constructed at suitable points on the Imperial Airways route. This work was made possible through the generosity of the Beit Trustees who granted a sum of money for the improvement of aerodromes and air communications generally in Northern Rhodesia. Money from this grant was utilized also by Government to purchase an excellent site for an aerodrome in the vicinity of the new Capital at Lusaka.

The Northern Aviation Company, Limited, continue to be the sole company operating in the territory, but a British pilot stationed in the Belgian Congo flies the mail between Elizabethville and Broken Hill to coincide with the arrival of the Imperial Airway machines at the latter place.

Private air traffic has increased considerably and there is little doubt that the public of Northern Rhodesia are rapidly becoming more air minded.

The Air Navigation Directions for Northern Rhodesia were brought into force on the 1st November, 1932, and the Commissioner of Police was appointed Registrar of Aircraft for the territory and the Inspector in Charge of the Aeronautical Inspection Directorate at Kisumu, Kenya Colony, was appointed Technical Adviser to Government on air matters generally.

XI.—BANKING, CURRENCY, AND WEIGHTS AND MEASURES.

The Standard Bank of South Africa, Limited and Barclay's Bank (Dominion, Colonial, and Overseas) operate in the territory with branches or agencies at the more important centres. The total deposits at these banks at 31st December, 1932, amounted to

£938,219 compared with £1,095,258 at the end of the previous year, a decrease of over 14 per cent. The Post Office Savings Bank deposits amounted to £13,365 at 31st December, 1932, as compared with £13,436 at the end of the previous year.

There is no Land or Agricultural Bank in the territory.

The Bank Notes and Coinage Ordinance 1931 prescribes as legal tender at par throughout the territory (*a*) Bank of England Notes, (*b*) Bank Notes issued by the Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial and Overseas) at their offices at Salisbury, Southern Rhodesia, and (*c*) the standard coinage in use in England. The enactment of this Ordinance on 12th October, 1931, marked the departure of Northern Rhodesia from the Gold Standard of currency. At the same time the export of gold or silver coin was prohibited except as personal cash not exceeding £5 in gold and £2 in silver.

The English standards of weights and measures are in force. The enactment of a local law is under consideration.

XII.—PUBLIC WORKS.

Owing to the general economic situation only a small proportion of the Loan programme was undertaken. The following is a brief summary of the major works completed or in course of construction during the year :—

Abercorn.—Building materials are being collected at the above station for the construction of a wireless station and work will be undertaken departmentally early in the new year.

Broken Hill.—Six residential houses were completed by contract. Extensions to the existing Post Office, together with a store for equipment, were erected under contract for the Engineering Branch of the Posts and Telegraphs Department.

Fort Jameson.—A wireless station was completed departmentally and two residential houses were commenced.

Kazungula.—A residential house, together with a veterinary office and store, was erected departmentally.

Lusaka.—Three residential houses were completed under contract, and a Post Office was also commenced under contract.

Livingstone.—A native hospital, with quarters for European and coloured nurses, was completed under contract. A maternity home, provided by the generosity of the Beit Railway Trust, was commenced under contract and is due for completion in the new year.

Luanshya.—One residential house, one hostel and general store, and administrative offices, were completed under contract.

Mazabuka.—One residential house was completed departmentally.

Mongu.—A Wireless Station was completed departmentally.

Monze.—One residential house was completed under contract.

Ndola.—A new block of combined offices, local prison, housing for African staff, fourteen residential houses, and a combined European and native hospital with nurses' home were completed under contract. A maternity home, provided by the generosity of the Beit Railway Trust, was completed under contract.

Petauke.—Two houses and a native medical dispensary were completed departmentally.

Senanga.—One residential house, office and court-house, housing for African staff and prison and store were completed departmentally.

The majority of the work on the railway line was carried out under contract and it appears that building prices have become more stabilized owing to keen competition in the building trade.

Lusaka (*new Capital*).—Temporary residential and non-residential buildings were erected for the Northern Rhodesia Police, together with a temporary hospital, school, also offices for the Posts and Telegraphs Department, Animal Health and Agricultural and European Education Departments, all of which were undertaken by contract. Permanent askari lines, N.C.O.'s quarters, kitchen blocks, armoury and magazines, latrine and wash blocks, and other buildings essential to the Northern Rhodesia Police Camp were completed under contract. Fifteen double-storey residential houses were also undertaken by contract and are due for early completion in the new year.

A preliminary water scheme has been installed for the purpose of supplying water for constructional purposes and for the recently constructed Military Police Camp, temporary offices and the fifteen houses under construction. The scheme includes approximately seven miles of pipe line, two boreholes, two deep-well pumps, and one 31 H.P. engine and centrifugal pump for lifting water to a 70,000 gallon elevated tank.

The clearing and forming of some five miles of earth road has been completed.

Communications.

On the Great North Road an important deviation, 20 miles in length, was completed between Broken Hill and Kapiri Mposhi. Several other deviations connecting up new bridges between Kapiri Mposhi and Abercorn, completed within the year, contributed to the general improvement of the Great North Road. The new route between Abercorn and Mpulungu on Lake Tanganyika was also completed.

On the Congo Border Road a length of 20 miles was re-conditioned between Ndola and Nkana, and surveys and reports were completed for the re-conditioning of a further stretch of 70 miles.

On the Great East Road the construction of the central deviation, 80 miles in length, crossing the Luangwa River below its confluence with the Lusemfwa River, was completed and the majority of the bridges are well in hand. The Luangwa River Bridge, being constructed by the Beit Railway Trust, was well advanced at the end of the year.

Approximately 75 per cent of the bridging and culverting programme, which was commenced in July, 1931, was completed by the end of the year, 25 bridges and 233 culverts having been erected. The building of 10 other bridges was practically finished.

Other survey work consisted of the reconnaissance of a route to link up Lusaka, the new Capital, with the Southern Rhodesia Road between Salisbury and the Zambesi River.

XIII.—JUSTICE, POLICE AND PRISONS.

Justice.

Justice is administered by the High Court of Northern Rhodesia and by the Magistrates' and Native Commissioners' Courts subject to appeal to and review by the High Court. During the year the High Court dealt with 160 civil matters as against 173 in the preceding year and heard 12 actions and 14 appeals. Nineteen petitions in bankruptcy were presented. Sessions were held during the year at points along the line of rail in April, May, and October. Thirty-two criminal cases came before the Court exclusive of reviews of judgments in the lower Courts : these latter numbered 262, of which 182 were confirmed, 46 quashed, 17 altered, 1 referred back and subsequently approved ; in the remaining 16 cases the accused were bound over.

Native Courts.

The Native Courts Ordinance was passed at the same time as the Native Authority Ordinance and was, like, the latter Ordinance, applied to all the territory, with the exception of Barotseland, as from 1st April, 1930.

Native Courts are established and constituted by the Governor and are of two grades. In addition to administering native law and custom in so far as such is not repugnant to natural justice and morality, they are given power under the Native Court Rules to try certain offences against the laws of the territory. Their power to inflict punishment is strictly limited and the Magistrates' and Native Commissioners' Courts have jurisdiction to revise and review their judgments, and in certain instances to order the retrial of a case. District Officers may sit as assessors in such Courts.

The Governor has the power to suspend and dismiss members and Provincial Commissioners have a similar power, subject to a report being made to the Governor on each occasion that it is exercised.

The general conduct of the Native Courts has been satisfactory and the progress made is encouraging. Disputes and offences appear to be dealt with adequately and judgments given in accordance with native custom.

Police.

The total number of cases dealt with by the Police during 1932 was 10,510 an increase of 2,718 on the figures for 1931 made up as follows :

Increase of offences by Europeans.

Common Law	Statute Law
2.	119.

Increase of offences by natives.

Common Law	Statute Law
638.	1,959.

The figures quoted below will indicate the number of more serious cases dealt with as compared with 1931 :

Crime.	*Europeans.*	*Natives.*	*Total.*	
			1932.	1931.
Affray	3	146	149	80
Arson	—	24	24	13
Assault, Common	38	185	223	199
Assault O.A.B. harm	22	141	163	87
Indecent Assault...	1	21	22	34
Indecent Curiosity	—	16	16	—
Burglary	—	94	94	100
Embezzlement	1	—	1	9
Forgery and Uttering	8	189	197	64
Fraud and False Pretences	56	41	97	19
Housebreaking and Theft	—	185	185	43
Theft (all forms)	47	987	1,034	1,036
Manslaughter	1	16	17	22
Murder	—	24	24	15
Attempted Murder	1	13	14	4
Perjury	5	6	11	8
Rape and attempted rape	2	25	27	21
Robbery	—	1	1	1
Assaults on Police	3	20	23	28
Indecent Exposure	—	4	4	1
Extortion	—	5	5	1
Incest	—	1	1	—

It will be seen that there has been a large increase in cases of housebreaking and theft, fraud and theft by false pretences, affray, forgery and uttering, and assaults, undoubtedly due to unemployment caused by the retrenchment of both Europeans and natives from the Copper Mines and elsewhere.

Owing to the general depression it was found necessary to close certain stations and effect retrenchment in the European and native personnel during the latter part of the year.

The figures quoted do not include those cases heard at stations where police are not available.

Prisons.

There are five central prisons in the territory situated at Livingstone, Broken Hill, Kasama, Mongu, and Fort Jameson.

Committals to the central prisons during the year totalled 1,918 as compared with 1,448 in 1931, an increase of 473. The figures for individual prisons are as follows :

	Committals.
Livingstone	621
Broken Hill	696
Fort Jameson	165
Mongu	333
Kasama	103
Total	1,918

The daily average number of prisoners was 544·76 as compared with 421·2 for the year 1931. The average sick was 36·72 compared with 21·7 for the year 1931.

Five natives were executed during the year. There were eleven deaths from natural causes, as against eight for the year 1931.

XIV.—LEGISLATION.

During the year under review three Sessions of the Legislative Council were held, one each in March, September, and December. In all 31 Ordinances were passed, of which 23 were amendments to the existing law. In the September and December Sessions financial legislation predominated, an anticipated short fall in revenue necessitating increased taxation in every possible direction.

Ordinances.

Appropriation Ordinance (No. 10).
Bank Notes and Coinage (Supplementary) Ordinance (No. 7).
Bank Notes and Coinage (Amendment) Ordinance (No. 25).
Customs and Excise Duties (Amendment) Ordinance (No. 9).
Customs and Excise Duties (Amendment) (No. 2) Ordinance (No. 16).
Customs and Excise Duties (Amendment) (No. 3) Ordinance (No. 26).
Customs Management (Amendment) Ordinance (No. 8).
Entertainments Tax Ordinance (No. 12).
Imperial Acts Extension (Amendment) Ordinance (No. 20).
Income Tax (Amendment) Ordinance (No. 31).
Licence and Stamp (Amendment) Ordinance (No. 3).
Licence and Stamp (Amendment) (No. 2) Ordinance (No. 22).
Mine Townships Ordinance (No. 11).
Minimum Wage Ordinance (No. 27).
Mufulira-Mokambo Railway (Amendment) Ordinance (No. 14).
Municipal Corporations (Amendment) Ordinance (No. 4).
Municipal Corporations (Amendment) (No. 2) Ordinance (No. 15).
Municipal Corporations (Amendment) (No. 3) Ordinance (No. 23).
Non-Native Personal Tax Ordinance (No. 28).

Quit Rent Redemption and Apportionment (Amendment) Ordinance (No. 18).
Registration of Business Names (Amendment) Ordinance (No. 13).
Revised Edition of the Laws (Amendment) Ordinance (No. 1).
Roads and Vehicles (Amendment) Ordinance (No. 19).
Supplementary Appropriation Ordinance (No. 21).
Tax on Official Salaries Ordinance (No. 30).
Townships (Amendment) Ordinance (No. 5).
Trades Licensing (Amendment) Ordinance (No. 2).
Trades Licensing (Amendment) (No. 2) Ordinance (No. 29).
Weights and Measures Ordinance (No. 8).
Widows and Orphans Pension (Amendment) Ordinance (No. 17).
Widows and Orphans Pension (Amendment) (No. 2) Ordinance (No. 34).

Of the principal Ordinances passed three impose additional taxation ; the Entertainments Tax Ordinance introduces a graduated tax on the price of admission to theatrical, cinematographic, circus, variety, and musical entertainments ; the Non-Native Personal Tax Ordinance imposes a tax of £1 on every non-native over 21 years of age and the Tax on Official Salaries Ordinance gives the Governor in Council power to impose a tax not exceeding 10 per cent on all official salaries exceeding £18 per month.

Of the other principal Ordinances, the Weights and Measures Ordinance is a comprehensive enactment based on the English Act of 1878, the Mines Townships Ordinance provides for the establishment and regulation of townships on land owned by the Mining Corporations, and the Minimum Wage Ordinance sets up machinery for the fixing of minimum wages in pursuance of the International Labour Convention adopted at the 11th Session of the League of Nations in the year 1928.

As regards railways, legislative sanction was given to the transfer of statutory rights from the Mufulira Copper Mines, Limited, to the Mashonaland Railway Company, Limited, in respect of the Mufulira-Mokambo Railway.

Of the amendment Ordinances the more important are :—

Customs and Excise—Ordinance No. 16—increases the duties on 22 Customs Tariff items, and Ordinance No. 26 gives effect to the Ottawa Conference decisions which concern this territory.

Bank Notes and Coinage—Ordinance No. 7—makes provision for the payment of a duty on Bank Notes, and Ordinance No. 25 enables Southern Rhodesia silver coins to be declared legal tender within the territory.

Trades Licensing—Ordinance No. 29 increases the fees for certain licences by 50 per cent and introduces a new provision for the advertisement of applications for and transfer of licences.

Income Tax—Ordinance No. 31 abolishes the allowance in respect of earned income, reduces the allowance for a wife from £600 to £420, increases the allowance for a child from £90 for the first and £60 for each subsequent child to a flat rate of £100 for each child, and increases the rate of tax.

The subsidiary legislation issued was as follows :—

Government Notices.

Air Navigation (Colonies and Protectorates) Order in Council, 1922—
- Air Navigation (Accidents) Regulations (No. 14).

Air Navigation (Colonies, Protectorates and Mandated Territories) Order, 1927—
- Air Navigation Directions (No. 94).
- Air Navigation (Amendment) Directions (No. 154).
- Air Navigation (Customs) Regulations (No. 130).

Air Navigation (Colonies, Protectorates and Mandated Territories) (Amendment) Order, 1931 (*No.* 3).

Alien Natives Registration Ordinance—
- Alien Natives Registration Regulations (No. 35).

Arms and Ammunition Ordinance—
- Arms and Ammunition (Amendment) Rules (No. 80).
- Arms and Ammunition (Amendment) (No. 2) Rules (No. 100).

Births and Deaths Registration Ordinance—
- Broken Hill Registration District (No. 62).
- Ndola Registration District (No. 52).

Bush Fires Prevention Ordinance—
- Applied to Abercorn District (No. 82).

Cattle Cleansing Ordinance—
- Application to area in Broken Hill District (No. 9).
- Appointment of Inspectors (No. 116).

Cattle Diseases Ordinance—
- Additional Diseases (No. 25).
- Cattle Diseases (Namwala) Regulations (No. 86).
- Cattle Diseases (South Guimbi) Regulations (No. 115).
- Cattle Diseases (Prohibited Imports) Rules Amended (No. 22).
- Cattle Diseases (Prohibited Imports) Regulations (No. 148).

Civil Service Proclamation, 1920—
- Civil Servants (Native Employees) Rules amended (Nos. 53, 120, and 148).

Control of Dogs Ordinance—
- Registration and Control of Dogs (Amendment) Regulations (No. 99).

Customs and Excise Duties Ordinance—
- Customs and Excise Duties (Commissions) Regulations (No. 10).
- Customs and Excise Duties (Suspensions) Regulations (Nos. 114 and 157).
- Customs and Excise Duties (Rebates, Refunds and Suspensions) Regulations (No. 24).

Customs Management Ordinance—
- Customs Officer, Solwezi (No. 75).
- Motor Vehicles (Temporary Importation) Regulations (No. 47).
- Port of Entry—
  - Sesheke (No. 122).
  - Solwezi (No. 75).
  - Kansanshi deleted (No. 75).

Electric Light and Power Ordinance—
- Date of Commencement (No. 74).
- Electric Light and Power Regulations (No. 34).
- Electric Light and Power (Amendment) Regulations (No. 141).
- Electric Light and Power (Supply) Regulations (No. 131).
- Electricity Control Board, Appointment of (No. 153).

Exportation of Gold and Silver Ordinance—
- Gold and Silver Restriction (Amendment) Regulations (No. 83).

Entertainments Tax Ordinance—
Date of commencement (No. 113).
Entertainments Tax Regulations (No. 93).

European Officers' Pension Ordinance—
List of Pensionable Offices (No. 79).

Explosives Ordinance—
Inspectors of Explosives, Appointment of (Nos. 91 and 95).
Blasting Licence, Form of application for (No. 13).

Forests Ordinance—
Demarcated Forest Area—Choma-Pemba Watershed (No. 119).
Demarcated Forest Area—Lusaka (South) Fuel Reserve (No. 149).
Reserved trees (No. 92).

Game Ordinance—
Game (Amendment) Regulations (No. 68).

High Court Ordinance—
High Court Rules, 1931, amended (No. 15).

Immigration Ordinance—
Immigration Officers, appointment of (No. 152).
Medical Officers, appointment of (No. 151).

Liquor Licensing Ordinance—
Liquor Licensing Regulations (No. 72).

Magistrates' Courts Ordinance—
Magistrates' Courts Rules, 1931, amended (Nos. 36 and 43).

Marriage Ordinance—
All Saints Church, Lusaka, licensing of (No. 87).

Motor Traffic Ordinance—
Motor Traffic (Amendment) Regulations (No. 5).
Motor Traffic (Amendment) (No. 2) Regulations (No. 156).

Municipal Corporations Ordinance—
Designation of Livingstone Municipal Council (No. 21).
Livingstone Traffic (Amendment) By-Laws (No. 71).
Ndola, Declaration of Municipality of, (No. 33); Division into Wards (No. 90).

Native Authority Ordinance—
Amendment of List of Authorities for Batoka District (No. 89).
Amendment of List of Authorities, East Luangwa and Fort Rosebery Districts (No. 97).
Amendment of List of Authorities, Fort Rosebery (No. 144).
Amendment of List of Authorities, Luangwa Province (No. 135).
Amendment of List of Authorities, Serenje and Ndola Districts (No. 89).
Order by Serenje Native Authorities (No. 20).

Native Beer Ordinance—
Native Beer (Amendment) Regulations (No. 6).
Native Beer (Amendment) (No. 2) Regulations (No. 61).

Native Court Ordinance—
Amendment of List of Courts for Fort Rosebery District (No. 147).
Amendment of List of Courts for Mpika District (No. 65).
Amendment of List of Courts for Mumbwa District (No. 7).
Amendment of List of Courts for Serenje District (No. 117).
Native Courts Rules, 1930, First Schedule Amended (No. 19),
Native Courts (Amendment) Rules (No. 124).

Native Grain Trading Ordinance—
- Prohibition of acquisition of grain within Abercorn and Isoka Districts (No. 57).
- Prohibition on acquisition of grain within Feira District (No. 28).
- Prohibition on acquisition of grain within the North East portion of the Angoni Reserve east of the Lutembwe River, Fort Jameson District (No. 29).

Orders in Council—
- The Air Navigation (Colonies, Protectorates and Mandated Territories) (Amendment) Order, 1931 (No. 3).
- The Copyright Convention (Japanese Territories) Order, 1931 (No. 67).

Ordinances : Non-Disallowance of—
- Nos. 24, 25, 26, 27, 28, 31, 32 and 37 of 1931 (No. 18).
- Nos. 33, 34, 35 and 40 of 1931 (No. 44).
- Nos. 2, 3, and 8 of 1932 (No. 51).
- Nos. 6, 9, and 10 of 1932 (No. 54).
- Nos. 1 and 4 of 1932 (No. 58).
- Nos. 5 of 1932 (No. 164).
- No. 7 of 1932 (No. 81).
- No. 12 of 1932 (No. 112).
- No. 13 of 1932 (No. 140).
- No. 14 of 1932 (No. 145).
- No. 16 of 1932 (No. 146).

Petroleum Ordinance, 1930—
- Petroleum (General) Regulations (No. 48).
- Petroleum (General) (Amendment) Regulations (No. 108).

Public Health Ordinance—
- Public Health (Abattoir and Transport of Meat) Regulations (No. 78).
    - Applied to Choma (No. 118).
    - „ „ Luanshya (No. 103).
    - „ „ Lusaka (No. 107).
    - „ „ Ndola (No. 98).
- Public Health (Drainage and Latrine) Regulations (No. 1).
    - Applied to Livingstone (No. 88).
    - „ „ Lusaka (No. 104).
- Public Health Rules 1914, repealed (No. 30).
- Repeal of Obsolete Regulations (No. 63).

Public Officers (Change of Titles) Ordinance—
- Commandant, Northern Rhodesia Police, and Commissioner of Taxes added to Schedule (No. 26).

Post Office Ordinance—
- Postal (Air Mail Fees) Regulations (No. 4).
    - „ (Amendment) Regulations (No. 8).
    - „ „ (No. 2) Regulations (No. 73).

Prisons Ordinance—
- "Mufulira" deleted from list of local prisons (No. 42).
- Visiting Justices (No. 105).

Roads and Vehicles Ordinance—
- Branch Roads—Kafue Province (Nos. 84 and 132).
- Main Road—Great North Road (No. 139).
- Restriction of traffic on Mpika-Chinsali Road (No. 2).
- Restriction of traffic on roads in Broken Hill Township (No. 133).
- Restriction of traffic on Great East Road (Nos. 136 and 150).
- Mulungushi Deviation—Great North Road (No. 138).
- Second Schedule to Ordinance amended by increasing fee per wheel for bicycles (No. 85).
- Second Schedule to Ordinance amended by altering the fee payable per wheel on a bicycle after 1st July (No. 126).
- Width of Roads Regulations (No. 11).

Telegraphs Ordinance—
- Overseas telegrams—surcharge of 33⅓ per cent on existing tariff rates (No. 17).
- Telephone (Amendment) Regulations (No. 40).

Theatres and Cinematograph Exhibition Ordinance—
- Films Censorship (Amendment) Regulations (No. 41).
- Films Censorship (Amendment) (No. 2) Regulations (No. 66).
- Films Censorship (Amendment) (No. 3) Regulations (No. 137).

Townships Ordinance—
- Broken Hill Mine Township (Amendment) Regulations (No. 60).
- Broken Hill Township (Amendment) Regulations (No. 17).
- Broken Hill Township (Amendment) (No. 2) Regulations (No. 50).
- Broken Hill Township (Amendment) (No. 3) Regulations (No. 125).
- Broken Hill Township (Rating) (Amendment) Regulations (No. 31).
- Broken Hill Township Water Regulations (No. 101).
- Bwana Mkubwa Township Area (No. 59).
- Chisamba Township Regulations (No. 76).
- Chisamba Management Board (No. 106).
- Fort Jameson Township (Amendment) Regulations (No. 46).
- Kafue Township Regulations (No. 45).
- Kafue Township—Regulation 6 (18) suspended on 11th and 12th July, 1932 (No. 55).
- Kasama Township Regulations (No. 39).
- Luanshya Township (Amendment) Regulations (No. 155).
- Lusaka Management Board (No. 105).
- Lusaka Township, area (No. 69).
- Lusaka Township, area (No. 127).
- Lusaka—Application of Townships (Assessment) Regulations (No. 121).
- New Lusaka, area, etc. (No. 128).
- Townships Assessment (Amendment) Regulations (No. 12).
- Townships (General) Regulations, 1st and 2nd Schedule amended (No. 77).
- Townships (General) (Amendment) Regulations (No. 32).
- Townships (Petroleum) (Amendment) Regulations (No. 109).

Town Planning Ordinance—
- Town Planning (Procedure) Rules (No. 129).

Trades Licensing Ordinance—
- Appointment of Ndola Municipal Council as Licensing Authority (No. 49).

Vagrancy Ordinance—
- Date of commencement (No. 27).

There is no factory legislation and no legislative provision for sickness, old age, etc.

As regards compensation for accidents, the Workmen's Compensation Ordinance, Chapter 121 of the Revised Edition of the Laws, is a comprehensive enactment which follows generally the principles of the English Act and applies to non-natives only. Provision for natives is contained in Part VI of the Employment of Natives Ordinance, Chapter 62 of the Revised Edition of the Laws of Northern Rhodesia.

XV.—PUBLIC FINANCE AND TAXATION.

The revenue and expenditure for the past seven years have been :—

		Expenditure.		*Total*
Year.	*Revenue.*	*Recurrent.*	*Extraordinary.*	*Expenditure.*
	£	£	£	£
1926–27	421,035	421,584	33,867	455,451
1927–28	474,683	475,175	43,631	518,806
1928–29	541,606	496,399	28,769	525,168
1929–30	672,289	532,367	22,160	554,527
1930–31	830,254	668,083	36,903	704,986
1931–32	856,376	793,798	26,258	820,056
1932	649,538	777,290	13,216	790,506

These figures exclude repayments to the Imperial Exchequer of grants-in-aid received in 1924/5 and 1925/6.

Loan expenditure on capital development amounted to :—

£
566,801 at 31st March, 1931.
1,216,681 at 31st March, 1932.
1,475,130 at 31st December, 1932.

The public debt, represented by inscribed stock issued early in 1932 under the Northern Rhodesia 5 per cent Loan 1950–1970 amounted to £1,250,000 at 31st December, 1932.

The assets of the territory at the 31st December, 1932, consisted of :—

	£
Cash	85,155
Investments	19,328
Advances pending the receipt of further Loan Funds	280,614
Sundry debtors	30,820
Stores	47,447
	£463,364

The liabilities were :—

	£	
Post Office Savings Bank depositors ...	13,365	
Native Reserves Fund	8,604	
Joint Colonial Fund	195,500	
Sundry creditors	50,763	
		268,232
Surplus assets		195,132
		£463,364

The main headings of taxation and yields during 1932 were as follows :—

	£
1. Licences	31,290
2. Native Tax	112,181
3. Stamp Duties	8,695
4. Customs and Excise Duties	200,933
5. Income-tax	120,085
	£473,184

Licence Fees are principally derived from t ng, vehicles, arms, shooting of game, sale of liquor, and prospe of minerals.

The annual native tax rates and the yields in 1932 are as follows :—

	£
Barotse Province (excluding Balovale District) —12s. 6d. ... ... Barotse Province (Balovale District)—7s. 6d. ...	21,942
Eastern Provinces—10s.	39,542
Western Provinces—12s. 6d.	48,014
Alien natives—7s. 6d., 10s. or 12s. 6d.	2,683
	£112,181

The tax is increased automatically by 1s. if not paid within nine months of the date on which it is due. All male natives are liable to pay one tax annually if they have reached eighteen years of age and are not indigent by reason of age, disease, or such other cause as the District Officer may accept. Women and children are not liable and there is no tax on additional huts or on plural wives. Reciprocal arrangements have been made with adjoining British Dependencies whereby natives are exempt from the tax if they have paid an equivalent tax elsewhere for the same year. The persons liable to tax are recorded in registers compiled under the supervision of District Officers. Collection is direct by officials of the Government and not by Native Authorities. Recovery for default is by distress through the Courts. The tax may be accepted in grain or stock at the discretion of the District Officer but the practice is rare. The law does not impose labour in lieu of tax. Thirty per cent of the Barotse tax is paid to a Trust Fund and applied directly to expenditure on native interests in the Barotse area.

Stamp duties, denoted by adhesive revenue stamps, are payable on all documents executed or received in the territory. The principal duties are :—

	£	s.	d.
Agreements			6
Bills of Exchange—			
Not exceeding £50			6
Exceeding £50 and not exceeding £100		1	0
Every additional £100		1	0
Cheques			1
Land Grants—			
Not exceeding 10 acres		10	0
Rising to not exceeding 3,000 acres	4	0	0
Every additional 1,000 acres	1	0	0
Equitable Mortgages—			
Every £100		2	0
Receipt when the sum exceeds £1			1
Conveyances—			
Every £50 or value of property sold or conveyed		10	0

For Customs purposes Northern Rhodesia is divided into two zones known as the Congo and Zambesi Basins. The Congo Basin can roughly be taken to be all the territory north of a line drawn on a map of Northern Rhodesia in a south-westerly direction from Fife in the north-east, to the border where the territory joins the south-east corner of the Belgian Congo. The remainder of the territory to the west and the south constitutes the Zambesi Basin. The Zambesi Basin is by far the more important part of the territory industrially, and more than 90 per cent of the total trade is transacted in this area.

The Zambesi Basin is subject to Customs Agreements with Southern Rhodesia, the Union of South Africa, and with the Bechuanaland Protectorate, Basutoland, and Swaziland. The Agreements provide in general for considerable rebates upon interchange of local manufactures, and for free interchange of raw products with limitation in regard to leaf tobacco.

The Congo Basin part of the territory is within the area defined by the Berlin Conference of 1885, and under the terms of the Convention revising the General Act of Berlin of 26th February, 1885, and the General Act and Declaration of Brussels, 2nd July, 1890, signed at St. Germain-en-Laye, 10th September, 1919, commercial equality within this area must be granted to nationals of the Signatory Powers and those of States Members of the League of Nations which adhere to the Convention ; this part of the territory is therefore excluded from the terms of the Customs Agreements mentioned in the preceding paragraph.

British preference is given in the case of the following classes of goods, which are mainly liable to *ad valorem* rates of duty ; clothing, blankets, and rugs, cotton piece-goods and all articles mainly imported for household and native use, the duty on British products being 10 per cent and the duty on foreign products varying from 15 to 25 per cent ; agricultural, electrical, mining and other industrial machinery, pipes and piping, metals and metal manufactures imported for industrial purposes, if of British manufacture, are free of duty, and if of foreign origin are subject to an *ad valorem* duty of 5 per cent, except foreign electrical machinery which is 15 per cent.

Specific rates of duty apply to practically all imported foodstuffs, and to spirituous liquors, wines, beers and tobacco ; upon the latter items no preference is granted except under the terms of the Customs Agreements with the neighbouring territories in the south but varying rates of preference are granted to foodstuffs of British origin.

The Customs Tariff contains three scales of duty :—

Scale " A "—In respect of goods not entitled to preferential treatment ;

Scale " B "—In respect of goods from the United Kingdom and British Possessions.

Scale " D "—Congo Basin duties.

Ports of Entry.

The following are the ports of entry into and exit from Northern Rhodesia : Ndola, Livingstone, Mokambo, Fort Jameson, Broken Hill (free warehousing ports), Abercorn, Kansanshi, Fort Rosebery, Nchanga, Kawambwa, Mpika, Balovale, Mwinilunga, Isoka, Chiengi, Feira, Kazungula, Sesheke.

Customs Agreements.

Under the terms of the Agreement with the Union of South Africa, Northern Rhodesia receives actual duty at Union tariff rates on imported goods ex open stocks, except on certain commodities where the duties are higher in Northern Rhodesia, and upon South African manufactures the Union Government pays the Northern Rhodesia Government 12 per cent of the export value of foodstuffs and 6 per cent of the export value of all other manufactures excepting cigarettes, tobacco, ales and beers, wines and spirits. The latter articles are directly taxed at Northern Rhodesia tariff rates subject to the following rebates : Cigarettes and tobacco manufactures 75 per cent ; ales, beers, and wines 50 per cent ; and spirits 25 per cent. Free interchange of raw products, except maize, is provided for, but Northern Rhodesia leaf tobacco exported to the Union is limited to 400,000 lb. per annum free of duty, and similarly Union leaf tobacco exported to Northern Rhodesia is limited to 50,000 lb. per annum free of duty.

Under the provisions of the Agreement with Southern Rhodesia a uniform tariff as far as possible is agreed upon, and actual import duty is paid upon removal of imported goods. Free interchange of raw products and manufactures is provided for, except in the case of ales, beers, wines, and spirits, which are taxed at import rates subject to the following rebates :—ales, beers, and wines 50 per cent, spirits 25 per cent, cigarettes and tobacco of Southern Rhodesia or Northern Rhodesia manufacture are not liable to import rates upon removal from one territory to the other but are subject to a transferred payment of the appropriate excise duties.

In respect of Union manufactures and imported goods removed from the Union of South Africa to Southern Rhodesia which are subsequently removed to Northern Rhodesia, the duty originally received by Southern Rhodesia from the Union Government is paid over to Northern Rhodesia, except on the particular South African manufactures detailed above for which the receiving territory is responsible for collecting the duty.

Income-tax on individuals is charged as follows :—

	s.	d.
For every £1 of the first £100 of chargeable income		6
,, £1 ,, next£100 ,, ,,	1	0
,, £1 ,, ,, £100 ,, ,,	1	6
,, £1 ,, ,, £100 ,, ,,	2	0
,, £1 ,, ,, £100 ,, ,,	2	6
,, £1 ,, ,, £500 ,, ,,	3	0
,, £1 ,, ,, £500 ,, ,,	3	6
And for every £1 in excess of £1,500	4	0

The following deductions are allowed : personal £300 ; for a wife £420 ; for children £100 each ; for a dependant £50 ; for life insurance, premiums not exceeding one-sixth of the income remaining after deducting the personal deduction.

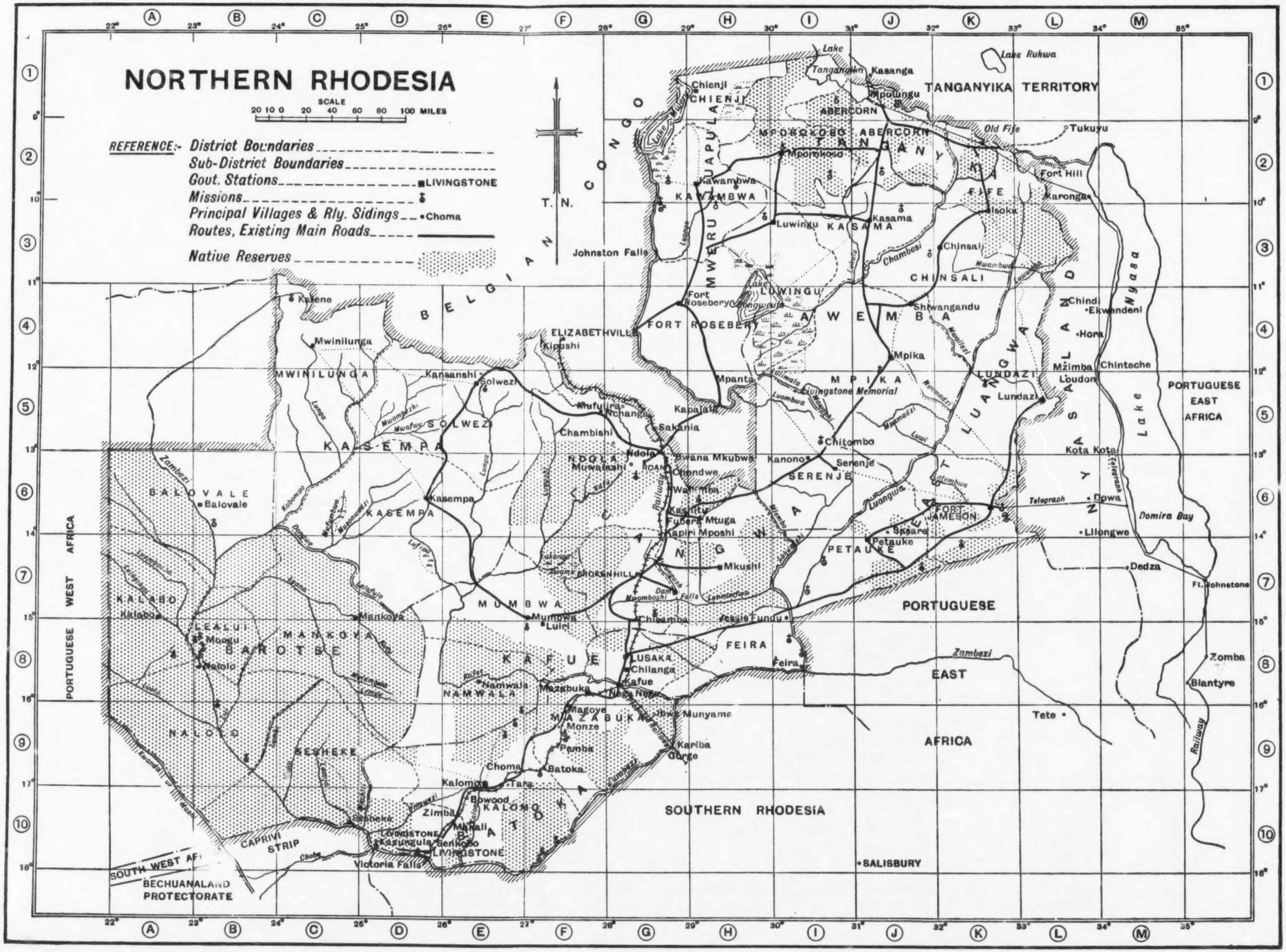
An individual who is a non-resident and not a British subject is eligible for the personal deduction of £300 only. Company income-tax is at the rate of 4s. in the £. Relief is allowed in respect of United Kingdom and Empire income-tax.

APPENDIX.

PUBLICATIONS OF GENERAL INTEREST RELATING TO NORTHERN RHODESIA.

Title.	*Price.*	*Agents.*
Annual Report, Health Department, 1931.	Not fixed.	Crown Agents, London.
Second Annual Bulletin, Department of Agriculture, 1932.	2s. 6d.	Government Printer, Livingstone.
Annual Bulletin, Department of Animal Health, 1932.	2s. 6d.	,, ,, ,,
Notes on the General Geology of Northern Rhodesia (J. A. Bancroft and R. A. Pelletier).	1s. 6d.	Secretary for Mines, Ndola, N. Rhodesia.
Annual Report, Customs Department.	8s. 3d.	Controller of Customs, Livingstone.
Quarterly Statistics of the External Trade of Northern Rhodesia.	5s.	Do. do.
Northern Rhodesia Customs and Excise Handbook.	7s. 6d.	Do. do.
Northern Rhodesia Blue Book (Annual).	10s. 6d. (1s. postage).	Government Printer, Livingstone.
"The Laws of Northern Rhodesia." Two volumes.	£3 3s. and £2 2s. for both volumes.	Waterlow and Sons, Limited.
Annual Volume of Ordinances ...	8s post free.	Government Printer, Livingstone.
Annual Volume of Government Notices.	8s. post free.	Do. do.
Northern Rhodesia Government Gazettes (two issued a month).	13s. 6d. p.a. post free.	Do. do.
Settlement in Northern Rhodesia	Gratis.	H.M. East African Trade and Information Office.
Travel in Northern Rhodesia ...	Gratis.	Do. do.
Sport in Northern Rhodesia ...	Gratis.	Do. do.
Hand Map of Northern Rhodesia	2s. 6d. post free.	Government Printer, Livingstone.
"The Kingdom of the Barotse" (Bertrand, 1899).	16s.	Fisher and Unwin.
"On the threshold of Central Africa" (F. Coillard).	15s.	Hodder and Stoughton.
"Exploration and Hunting in Central Africa." (A. St. Hill Gibbons).	15s.	Methuen.
"In Remotest Barotseland" (Colin Harding).	10s. 6d.	Hurst and Blackett.
"Coillard of the Zambezi" (Mackintosh).	—	—
"Travel and Adventure in S.E. Africa" (F. C. Selous).	25s.	Roland Ward.
"A Hunter's Wanderings in Africa" (F. C. Selous).	18s.	Bentley.
"Missionary Travels in S. Africa" (Dr. Livingstone).	—	Murray.
"The New Zambezi Trail" (Mackintosh).	—	—
"Barotseland" (D. E. C. Stirke).	21s.	Bale.
"The Great Plateau of Northern Rhodesia" (West Sheane and Cullen Gouldsbury).	16s.	E. Arnold.

Title.	*Price.*	*Agents.*
" An African Year " (Cullen Gouldsbury).	5s.	E. Arnold.
" In Witch-bound Africa " (F. H. Melland).	21s.	Seeley Service Co., Ltd.
" The Ila Speaking Peoples of Northern Rhodesia " (E. W. Smith and A. M. Dale). Two Volumes.	50s.	Macmillan & Co., Ltd.
" Winning a Primitive People " (Donald Frazer).	5s.	Seeley Service Co., Ltd.
" Africa " (Sir Harry Johnston)...	—	National Society's Depository.
" The Lambas of Northern Rhodesia " (A. M. Doke).	36s.	Harrap.
" Africa in the Making " (H. D. Hooper).	2s.	United Council for Missionary Education.
" In South Central Africa " (J. M. Moubray).	10s. 6d.	Constable and Co., Ltd.
" The Lands of Cazembe " ...	—	Murray.
" The Way of the White Fields in Rhodesia " (E. W. Smith).	5s.	World Dominion Press.



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EMPIRE MARKETING BOARD PUBLICATIONS

Note on the work of the Board and Statement of Research and other Grants approved by the Secretary of State from July, 1926, to March, 1932. Cmd. 4121.	9*d.* (10*d.*).
British Empire Hardwoods from the point of view of Turnery.	2*s.* (2*s.* 2*d.*).
Wool Quality: A Study of the Influence of various contributory factors, their significance and the technique of their measurement. Cloth.	£1 1*s.* (£1 1*s.* 9*d.*).
Australian and New Zealand Fruit Shipments. Report of an investigation into the deterioration in transit of Imported Australian and New Zealand Fruit, 1927–30. (E.M.B. 46.)	1*s.* (1*s.* 2*d.*).
Banana Breeding at the Imperial College of Tropical Agriculture. (E.M.B. 47.)	1*s.* (1*s.* 2*d.*).
Imperial Sugar Cane Research Conference, 1931. Report of Proceedings.	2*s.* 6*d.* (2*s.* 11*d.*).
Further Changes in the Demand for Butter, July, 1928, and July, 1931. Report of an Investigation into the Retail Marketing of Butter in Nottingham. (E.M.B. 48.)	1*s.* (1*s.* 1*d.*).
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ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF

NORTHERN RHODESIA

1933

(For Reports for 1931 and 1932 see Nos. 1592 and 1626, respectively, price 2s. 0d. each)

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ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF NORTHERN RHODESIA, 1933

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I.—GEOGRAPHY, CLIMATE, AND HISTORY.

Geography.

The territory known as the Protectorate of Northern Rhodesia lies between longitudes 22°E. and 33°33′E. and between latitudes 8°15′S. and 18°S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South West Africa, comprising in all an area that is computed to be about 290,320 square miles. The River Zambezi forms the greater part of the southern boundary; its two main northern tributaries are the rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

History.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown territory. The curtain of obscurity lifts for a moment when we read the diaries of the Portuguese Governor of Sena, Dr. Lacerda, who led an expedition in 1798 from Tete into Kasembe's country, close to the eastern shores of Lake Mweru. He was followed in the early 19th century by two Portuguese traders, Baptista and José, who brought back stories of the great interior kingdom of the Balunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the 16th to the 19th century. Very few historical facts are known about it, but the name of Muati Yamvo, the dynastic title of the Paramount Chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and in 1855 discovered the Victoria Falls, that the civilized world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls, were Serpa Pinto, Cameron, Selous, and Arnot.

From the very early days when the hordes of migratory Bantu swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasions from stronger tribes on its borders, so much so, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambezi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time the population of the territory has been classified into seventy-three different tribes, the most important of which are the Wemba, Ngoni, Chewa, and Wisa in the north-eastern districts, the Rozi, Tonga, Luvale, Lenje, and Ila in the north-western districts, and the Senga, Lala, and Lunda, members of which are resident in both the eastern and western areas. There are some thirty different dialects in use, but many of them vary so slightly that a knowledge of six of the principal languages will enable a person to converse with every native in the country. Chinyanja is in use as the official language of the police and is probably the language most generally spoken by Europeans; it is in reality a Nyasaland language—the word means "Language of the Lake"—but it is also spoken to some extent round Fort Jameson. In many instances the tribes overlap and encroach upon each other, and it is not uncommon to find a group of villages of one tribe entirely surrounded by villages of another tribe. Many of the tribes on the borders extend into neighbouring territories; in some instances the paramount chief resides in a foreign country and only a small proportion of the tribe lives in Northern Rhodesia. On the other hand, the majority of the tribe sometimes has its abode in this country and only a small portion of the tribe is in the adjoining territory.

The chief invaders of the early part of the 19th century were the Arabs from the north, the Angoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the territory, and the Makalolo, an offshoot of the Basuto family, who in the beginning of the 19th century fought their way from the south through Bechuanaland and across the Zambezi under the noted Chief Sebitoani; they conquered the Batoka, the Masubia, and the Marozi and founded a kingdom which was distinguished by a comparatively high degree of social organization.

The duration of the Makalolo kingdom was short. Soon after the death of Sebitoani, the Marozi rebelled and massacred the Makalolo to a man. The influence of their occupation is still to be seen in the Sikololo language, which is largely spoken amongst the tribes near the Zambezi. The Marozi under Lewanika enlarged their kingdom by conquering one or two of the surrounding tribes, such as the Mankoya and the Malovale. Beyond these limits their authority was both nebulous and ephemeral.

In the year 1891 Lewanika was informed that the protection of Her Majesty's Government had been extended to his country as he had requested that it should be, and on 17th October, 1900, the Barotse Concession was signed by him and his chiefs and representatives of the Chartered Company. The concession was confirmed in due course by the Secretary of State for the Colonies and under its terms the Company acquired certain trading and mineral rights over the whole of Lewanika's dominion, while the Paramount Chief was to receive, among other advantages, an annual subsidy of £850.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lakes Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in 1893 the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave-raiders were occasionally encountered on the north-east boundary, and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavery. This social serfdom was brought to an end by the edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Previous to 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland-North Western Rhodesia Order in Council placed the administration of the western portion of the country by the Company on a firm basis; this was closely followed by the North-Eastern Rhodesia Order in Council of 1900 with similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924, when, in terms of a settlement arrived at between the Crown and the Company, the administration of the territory was assumed by the Crown, and the first Governor was appointed on 1st April, 1924.

Climate.

There are considerable climatic differences between various parts of the country. The Zambezi, the Luangwa, and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November before the rains break, when the mean maximum is 97° in the Zambezi valley stations and 85° at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90·3° with a mean minimum of 64·5°, while the corresponding figures for the four months of the cold season (May to August) are 78·7° and 46·6°.

The following table gives representative temperatures for the territory experienced during 1933:—

	Highest mean Max.°F.	*Month.*	*Lowest mean Min. °F.*	*Month.*	*Absolute Max.°F.*	*Month.*	*Absolute Min.°F.*	*Month.*
Livingstone, 3,000 ft. ...	**96·6**	**Oct.**	**47·9**	**July**	**100·0**	**Oct.**	**38·1**	**May**
Broken Hill Observatory, 3,920 ft. ...	**89·8**	**Oct.**	**48·8**	**July**	**95·3**	**Oct.**	**41·7**	**July**
Isoka, 4,210 ft. ...	**90·1**	**Nov.**	**57·5**	**July**	**98·0**	**Nov.**	**50·0**	**June**
Balovale, 3,400 ft. ...	**100·7**	**Oct.**	**45·7**	**July**	**108·0**	**Oct.**	**41·0**	**July**

Highest temperature ... ... 111° Kanchindu.
Lowest „ ... ... 31° Solwezi and Sesheke.

The rainy season usually commences in November and lasts until April. Slight showers occur to the north-east of the territory in

August and to the north-east and north-west in September. In October the rains begin to spread over the whole territory, reaching a maximum in December.

The intensity of rainfall decreases in January, this falling off appearing to be the nearest approach to the break in the rains, which is characteristic of the two seasonal areas of the central tropical zone.

In February the rains re-establish themselves over the whole of the central area of the territory, following much the same contour alignment as in December. In March the zone of heavy rainfall shifts well to the north and east. In April the rains have definitely moved north and in May have practically ceased.

The greatest rainfall recorded in 24 hours was at Misundu on 3rd December, 1933, and was 6·18 inches.

II.—GOVERNMENT.

Central Administration.

The office of Governor was created by an Order of His Majesty in Council dated 20th February, 1924, and the first Governor assumed his duties on 1st April, 1924.

The Governor is advised by an Executive Council which consists of five members—the Chief Secretary, the Attorney-General, the Treasurer, the Secretary for Native Affairs, and the Director of Medical and Sanitary Services. Provision is also made for the inclusion of extraordinary members on special occasions.

The Order in Council provided that a Legislative Council should be constituted in accordance with the terms of the Northern Rhodesia (Legislative Council) Order in Council, dated 20th February, 1924, to consist of the Governor as President, the members of Executive Council ex officio, nominated official members not exceeding four in number, and five elected unofficial members.

In 1929 the number of elected unofficial members was increased to seven consequent upon the very considerable increase in the European population.

Provincial Administration.

For administrative purposes the territory was formerly divided into nine provinces, each of which was under a Provincial Commissioner responsible for his province to the Governor, but during the year the number of provinces has been reduced to five. The provinces are divided into districts under the charge of District Commissioners responsible to the Provincial Commissioners.

Native Administration.

In 1929 the Native Authority Ordinance was passed and subsequently applied as from 1st April, 1930, to all the territory with the exception of Barotseland. Barotseland was exempted from the application of the Ordinance on account of the rights which the

Paramount Chief and his Khotla (Judicial and Deliberative Assembly) preserved under the concessions granted to the Chartered Company.

The Ordinance empowers the Governor to appoint in specified areas Native Authorities, consisting of one or more chiefs or other natives, to be responsible for the performance of the obligations imposed upon them by the Ordinance and for the maintenance of order and good government in the area. The Governor also has the power to suspend or dismiss members of such Native Authorities. The duties of the Authorities are clearly defined in the Ordinance, which confers upon them power to make rules for certain objects. It is the duty of all natives to assist such Native Authorities in the work of administration.

The system is developing and the work of the Authorities is improving as the chiefs gain experience.

Native Treasuries have not yet been established, but steps are being taken to educate the Native Authorities in the matter of finance and the administration of public funds.

III.—POPULATION.

The first census of the territory took place on 7th May, 1911, prior to the amalgamation in the same year of North-Eastern and North-Western Rhodesia under the title Northern Rhodesia; the second was held on 3rd May, 1921, and the third on 5th May, 1931.

The following table shows the increase of population since 1911 (the figures for European population for 1931 are census figures, whilst all those for African population are taken from the reports of the Secretary for Native Affairs) :—

Year.	*Europeans.*	*Increase. per cent.*	*Africans.*	*Increase. per cent.*	*Proportion Africans to one European.*
1911	1,497		821,063		548·47
1921	3,634	143	979,704	19	269·59
1931	13,846	381	1,372,235	40	99
1932	10,553	*23·7	1,382,705	·763	131
1933	11,278	6·87	1,371,213	*·83	121·58

* Decrease.

The increase in the number of Europeans between 1921 and 1931 was due to the influx which took place during the development of the copper mines in the Ndola District between 1927 and 1931. The mines had nearly completed construction towards the end of the year 1931 and a considerable number of Europeans left the territory in consequence.

The economic depression which set in towards the end of 1931 has been the cause of a further drop of 23·7 per cent. during 1932. In 1933 an increase was brought about by the renewed activity at the copper mines. The figures given have been collected from the annual reports of District Commissioners throughout the territory and may be regarded as being reasonably accurate.

The numbers of Asiatics and non-native coloured persons in the territory at the 1931 census amounted to 176 and 425 respectively.

The African population is now estimated to be 1,371,213, which shows a decrease of 11,492 or ·83 per cent. on the previous year, and its average density through the territory is 4·7 to the square mile. The average birth-rate calculated on statistics taken at 449 villages with a population of 44,097 during 1933 was 56·9 per thousand, and the percentage of infantile mortality was 27·7 (infants under the age of one year 17·8 per cent., under two years 9·9 per cent.).

The European population at 11,278 shows an increase of 725 over 1932 or 6·87 per cent., whilst the death-rate is 9·13 per mille as compared with 11·08 during 1932 and 15·16 during 1931.

Vital Statistics.

	1928.	1929.	1930.	1931.	1932.	1933.
Number of deaths ...	97	93	163	210	117	103
Death-rate per 1,000 ...	12·87	9·32	13·58	15·16	11·08	9·13
Deaths of infants under 1 year of age.	15	21	28	28	24	13
Death-rate per 1,000 of births.	76·92	99·52	102·56	84·08	72·29	40·88

Births :—318

The birth-rate was 33·78 per mille as compared with 34·94 in 1932 and 24·05 in 1931.

Immigration.

The number of immigrants who entered Northern Rhodesia during 1933 to assured employment and seeking employment or to settle, exclusive of natives and excluding visitors, returning residents, and persons in transit was 801, of whom 746 were British subjects. Of the 55 foreigners who entered the territory, 19 were citizens of the United States of America.

The following comparative figures of immigrants are indicative of the progress of the territory :

1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
756	1,038	1,066	1,861	3,651	1,702	615	801

Fifty-four persons with seven dependants were deported under the Immigration Ordinance: of these deportees, 34 were indigent, twelve were both illiterate and indigent, one was a criminal, four were both criminal and indigent, and three were deported on economic grounds.

No figures of emigrants are available.

One hundred and seventy-three destitute persons were repatriated to neighbouring territories and overseas at Government expense. The year thus compares very favourably with 1932, when 409 destitute Europeans were similarly repatriated. Of the 173 repatriates, 153 were repatriated during the first half of the year. Thus it can be seen that the repatriation of destitute Europeans is rapidly returning to normal.

Asiatic Population.

The approximate Asiatic population of the territory on 31st December, 1933, was 179. All of these Asiatics are British Indians with the exception of three who are described as natives of the Seychelles.

IV. HEALTH.

The Government continued to maintain European hospitals at Livingstone, Lusaka, Broken Hill, Fort Jameson, Kasama, and Mongu, together with native hospitals at these stations and also at Choma, Mazabuka, Fort Rosebery, and Balovale. The European and native hospitals which were erected at Ndola during 1932 were opened in January and the temporary hospital at Bwana Mkubwa was closed down.

The new Beit Maternity Block, a valuable addition to the Livingstone European hospital, was opened on 13th April. This addition to the hospital has relieved the congestion in the ordinary wards and has provided facilities in keeping with modern demands.

In addition to the above, many mission doctors, hospitals and dispensaries receive annual subsidies from Government for medical work in native areas.

The big mines in the copper belt maintain their own medical staff and have provided well-equipped hospitals in which they care for their own sick. Europeans and natives living in the mining areas can obtain treatment in the mine hospitals at fixed charges.

The railway maintains either full-time or part-time medical officers, who give medical attention to the railway staff as required. These medical officers are stationed at Livingstone, Lusaka, Broken Hill, and Ddola.

There are a small number of private practitioners in the territory.

Government gives subsidies to dental surgeons at Livingstone, Lusaka, Broken Hill, Ndola, and Fort Jameson, for which they are expected to carry out regular inspections of European school children and provide treatment for them at fixed charges. In addition, in return for the subsidies, dental treatment is also given at fixed rates to members of the Northern Rhodesia Police.

Owing to the state of finances in the territory, the Health Section of this department suffered serious losses during the year. The Deputy Director of Sanitary Services was transferred to Uganda, the Senior Health Officer returned to Palestine, and the Medical Officer of Health who was stationed at Livingstone was transferred to a medical station.

However, Government still maintains Health Inspectors at Ndola and Lusaka and the Municipality controls sanitation at Livingstone under the supervision of a Government medical officer, who acts as Medical Officer of Health, as do all Government medical officers on their respective stations.

Malaria and Blackwater.—Regular anti-malarial measures in and around most of the towns have resulted in a considerable decrease in the malarial incidence. The decrease is shown by the figures for Livingstone, where the cases of malaria in Europeans treated at the hospital were respectively, 219, 124, and 75 for the years 1931, 1932, and 1933. Anti-mosquito measures are also carried out in the mine towns, and the work done at Luanshya has proved of very considerable value.

Sleeping Sickness.—One European and ten natives have been reported throughout the year as having suffered from this disease, the distribution being :—

	Cases.	
Fort Jameson ...	... 5	(including the European case)
Kasungu District ...	1	
Mporokoso ...	... 2	
Mpungwe ...	... 1	
Ndola ...	... 1	
Broken Hill ...	... 1	
Total ...	... 11	

This disease is limited to certain portions of the territory and the source of infection of cases occurring elsewhere has in every case been traced to the sleeping sickness area. Thus it can be seen that there is no reason why any person avoiding the danger zones need be exposed to this infection.

Cerebro-Spinal Meningitis.—This disease occurs sporadically and there have been no epidemics during the year.

Rabies.—From time to time during the year the occurrence of rabid dogs, or suspected rabid dogs, was reported. All persons suspected of being in contact with such animals were protected by innoculation.

Smallpox.—There was a small outbreak of this disease in the Lusaka District during the latter half of the year and a few isolated cases in different parts of the territory, but the absence of serious epidemics suffices to prove that the extensive campaign for the vaccination of the native population which has been carried out during the past few years has had the desired results. Results have educated the native to the extent of his accepting and appreciating European methods.

Child Welfare.

The Government Welfare Sister at Livingstone resigned early in the year and her duties amongst Europeans and natives have been carried out by the District Nurse, who is subsidized by Government.

The Government Sister, who was appointed in 1932 to do welfare work in the Ndola area amongst the rapidly-increasing poor white population, has justified her appointment.

In September a similar appointment was made at Lusaka, and reports show that the work there is appreciated and is expanding amongst both the European and African populations.

Native Labour.

Mufulira Mine opened in July, the production of zinc at Broken Hill has been considerably increased, and copper has been actively mined at Luanshya and Nkana throughout the year. The labour force on the mines increased steadily from January to October, when the figures began slightly to decline. In January the number of natives engaged in mining was 6,677; in July this figure had increased to 10,227, and at the end of October it had reached 13,128; but at 31st December the number of employed natives had fallen to 12,361, probably owing to surface work being interfered with by heavy rains. The mines to-day are in the happy position of being able to choose their employees, as many more natives offer themselves for work than the mining industry can absorb.

The death-rate from all causes amongst the African employees on the mines fell from 12·13 per 1,000 in 1932 to 11·80 in 1933. The fatal accident rate was 3·93 per 1,000 and the sickness rate 7·87.

Medical Work amongst Africans.

The Africans resident in native areas are under the care of the medical officers stationed at the more important administrative centres, but up to the present it has not been found possible to begin extensive medical work in these areas. It is hoped that progress will be made when the finances of the country improve.

V.—HOUSING.

European Government Housing.

The construction of accommodation continued during the year at Balovale, Fort Rosebery, Fort Jameson, Kasama, and Namwala, and with the completion of this work the building programme ends for the time being.

In the New Capital at Lusaka, fifteen new houses were completed, whilst four others, together with six blocks of flats, were commenced.

Temporary office accommodation was provided for a number of Departments who have taken possession of them.

European Non-Government Housing.

Owing to the financial depression, which was much more marked during 1933 than in the preceding year, practically no building, except work at the new Administrative Headquarters at Lusaka, was carried out.

In most centres, as a result of retrenchment, more houses were available than required and consequently the European population was adequately housed under very satisfactory conditions.

During the year, improvements were effected in the conditions obtaining in the various centres where unemployed had collected, chiefly in the way of sanitation.

Building regulations have been published and all new erections have to conform to definite standards.

Native Housing.

Development in this matter has been held back by the depression, but all new native quarters in settlements along the railway line have been built in accordance with the standards now laid down by regulation.

During the year, a prolonged tour of the north-eastern and part of the north-western portions of the territory was carried out by the Deputy Director of Medical Services, who reported that everywhere there was evidence that the more enlightened natives are building several-roomed rectangular buildings and that there are signs of an awakening interest in village sanitation.

VI.—PRODUCTION.

Land and Agriculture.

Of the total approximate area of the territory of 185,804,800 acres, the North Charterland Exploration Company holds a concession over 6,400,040 acres, subject to the assignment of native reserves, the area of which has recently been computed at 2,227,000 acres. The British South Africa Company owns the Tanganyika Estate of 2,758,400 acres, from which must be deducted 1,094,475 acres for Native Reserves. Land otherwise alienated by sale to Europeans amounts to 2,802,251 acres, which includes the Kafue Area Concession of 409,087 acres, but does not include 124,418 acres of land leased without option to purchase. The total area of land alienated to Europeans is therefore 8,763,634 acres or about 4½ per cent. of the whole territory. Most of the alienated land is used for grazing. Some of it is cultivated, but a large area is unsuitable either for grazing or cultivation.

The following table illustrates the trend of arable farming since 1925. These figures and those in other tables relate only to settlers' holdings; no statistics of native production are available :—

Season.	*Maize.*	*Tobacco.*	*Wheat.*	*Total under cultivation.*
	acres.	*acres.*	*acres.*	*acres.*
1925–26	36,470	4,939	3,387	60,297
1926–27	44,837	6,719	2,780	69,837
1927–28	43,889	7,358	1,734	62,928
1928–29	39,215	3,232	2,572	67,207
1929–30	47,085	3,585	2,095	66,429
1930–31	42,974	2,328	1,594	76,092
1931–32	42,757	2,472	2,261	73,000*
1932–33	34,036	2,236	2,271	63,000*

* Estimated.

The final column includes acreages under minor crops, orchards and bare fallows.

The 1932-33 season opened badly in most districts and considerable difficulty in completing the planting programme was experienced. Conditions then improved and crops looked well for a time. The rain ceased abruptly during the last week of February and the effect of drought, particularly on the abnormally large acreage of late sown crops, was disastrous.

The maize crop was the smallest since 1925, due to the combined effect of reduced acreage, drought, and locusts. The acreage, the lowest for eleven seasons, was 20 per cent. less than that of the preceding year. The reduction may be ascribed partly to fear of over-production and partly to inability to establish a full crop owing to adverse climatic conditions during the planting season. The yield of 3·6 bags per acre was lower by 1·2 bags than the mean of the thirteen preceding seasons. Statistics of maize production from 1926 onwards are summarized in the following table :—

Year ending 31st December.	*Area in thousands of acres.*	*Average yield in bags per acre.*	*Yield in thousands of bags.*	*Farm consumption in thousands of bags.*	*Surplus available for sale in thousands of bags.*
1926 ...	36	4·9	177	37	140
1927 ...	45	5·6	250	36	214
1928 ...	44	4·2	184	32	152
1929 ...	39	5·1	202	33	169
1930 ...	47	4·3	202	37	165
1931 ...	43	4·5	194	33	161
1932 ...	43	6·9	296	46	250
1933 ...	34	3·6	122	31	91

Wheat is grown almost exclusively as a winter crop under irrigation, and production is practically confined to the Lusaka district. Wheat growing, both in acreage and yield, was on the same scale as in 1932. The season was decidedly favourable and little or no locust damage occurred. The trend of wheat production is illustrated in the following table :—

Year.	*Acreage.*	*Yield in bags of 200 bags.*	*Average yield per acre.*
1926	3,387	11,687	3·5
1927	2,780	10,586	3·8
1928	1,734	8,512	4·9
1929	2,572	11,838	4·6
1930	2,095	9,583	4·6
1931	1,594	5,627	3·6
1932	2,261	11,373	5·0
1933	2,271	11,579	5·1

Tobacco is the one important export crop and is grown chiefly in the Fort Jameson district, though interest has recently revived on the railway line. The season was a good one at Fort Jameson and the crop sold readily, albeit at low prices. In this season Southern Rhodesia manufacturers agreed to purchase leaf tobacco to the extent of the imports of their manufactured tobacco and cigarettes during the previous year. This proved a great boon to planters, as the prices obtained were above export parity and the leaf was purchased on the spot. The total area planted was 2,236 acres, and 1,266,600 lb. of cured Virginia leaf was produced. Of this, 143,000 lb. was sun or air cured and the remainder flue cured. The average yield (all types) of 566 lb. per acre is probably a record for the territory.

Minor crops such as groundnuts, potatoes, sweet potatoes, and pulses are of trivial importance in comparison with maize, wheat, and tobacco. Increased demand stimulated the market-gardening industry and 750 tons of mixed vegetables were sold.

Green manuring has become an established practice on most farms and the practice is extending. 9,400 acres were green manured in 1933.

The territory continues to obtain the bulk of its fruit requirements from Southern Rhodesia and the Union of South Africa. Deciduous fruit trees are successful only in a few favoured localities, but citrus thrives in most parts where irrigation is possible. The equivalent of about 7,000 cases of locally-produced citrus fruit was sold.

Arable farming conditions on the railway line went from bad to worse. The huge maize crop of 1931-32 depressed prices to an abnormally low level, but the situation was relieved to some extent by the action of the Co-operative Society in exporting, at a heavy loss, some 70,000 bags in March. The new crop was abnormally short and even with the carry-over from the previous season is hardly sufficient to meet the increased internal demand. The average price for the crop will probably be considerably higher than that of recent years, but many farmers have little or no maize to sell and few obtained good yields. The outlook for the future would be fairly promising were it not for the locust menace.

Several of the young coffee estates at Abercorn produced for the first time. The preliminary indications of quality are unquestionably satisfactory, but the future of the industry will depend not only on the finding of markets but also on the maintenance of prices and on the ability of the bushes to maintain a reasonable yield under local conditions. Other than the White Borer there is no serious pest at present. It is now evident that irrigation and heavy manuring will be essential on the light soils of the Abercorn coffee plantations.

Red locust swarms bred in almost all districts at the end of 1932. The resulting hoppers and young flying swarms did considerable damage to European and native crops in February, March, and April, but the damage, though locally severe, was not, in the aggregate, nearly as serious as might have been expected from the degree of infestation. The migratory locust was in little evidence. Commencing in October, red locusts and mixed flying swarms resumed activity and, owing to the earlier onset of the rains, egg-laying commenced in November and continued to the end of the year. Hopper swarms are now present in every district in great numbers and the outlook is even more serious than at a corresponding period last year.

Veterinary.

With the exception of contagious bovine pleuro-pneumonia and foot and mouth disease, both of which are confined to the Barotse Province, the territory is free from major diseases of stock. It is hoped that foot and mouth disease will be eradicated in the near future and it is possible that an intensive scheme for the elimination of contagious bovine pleuro-pneumonia may be undertaken within a measurable period. In the meantime the spread of these epizootics is prevented by means of cordons.

Loss from such diseases as quarter evil and anthrax has been lessened to a very great extent by prophylactic inoculation, and the incidence of these diseases is becoming, year by year, of less economic importance. Practically the whole of the European-owned stock in the settled areas is regularly dipped, and this practice is now being extended to native reserves by the provision by Government of dipping tanks in certain areas. The practice was at first well received but, owing to one cause or another, there is now a certain amount of apathy on the part of the native cattle-owners. This can be attributed largely to the lack of personal contact which has resulted from the retrenchment of several Dipping Inspectors, previously stationed in native reserves. There is no doubt that in areas where regular dipping has been practised a decided improvement in native-owned stock has taken place.

During the period under review the rainfall has been sufficient to produce good grazing and an adequate supply of water throughout the year.

The general depression, which set in a year or so ago, has had a very serious effect on the marketing of stock. A few years ago it was not possible for this territory to supply the demand for slaughter stock; to-day the demand has fallen to less than half the previous requirements and it is difficult to find a market for cattle.

A Livestock Co-operative Society has been formed, but it is regretted that it is not yet obtaining that support from farmers which it deserves. Government has given assistance to this Society, and all sales are conducted on a live weight basis over scales erected at certain points on the railway line by Government.

An up-to-date Creamery, in which Government is interested, has been in operation for some months at Lusaka. It has already proved itself to be of considerable financial benefit to the farming community and has not yet reached its peak of production.

Northern Rhodesia remained closed for the greater part of the year to the importation of slaughter stock from Southern Rhodesia owing to the existence of foot and mouth disease in that territory.

Mining.

Producing Mines.

Roan Antelope Mine.—The restriction under which the copper output was limited to approximately 2,200 tons of copper per month terminated on the 31st December, 1932. The output was increased to 3,700 tons per month at the commencement of 1933 and rose to 5,000 tons in the month of December, the over-all costs of production landed in the European market averaging £22 per ton of blister copper.

The development programme of the mine has been kept well in advance of output requirements, which has greatly facilitated meeting the increase. 1,892,679 tons of ore assaying 3·4 per cent. copper were treated, yielding 48,438 tons copper, valued at £1,585,054, as compared with 29,778 tons, valued at £950,133, produced in 1932.

The freedom of the blister copper from harmful impurities enables it to be used for electrical work without further refining, and a long-term contract for a substantial tonnage has been entered into with the Blister Copper Refiners Limited. 490 Europeans and 3,789 natives were employed on the mine in December, 1933, an increase of 110 Europeans and 1,445 natives since 1st January.

Nkana Mine.—An electrolytic copper refinery capable of producing 3,000 tons per month was commenced in July and will be completed in August, 1934, a sum of £240,000 being borrowed from the Colonial Development Fund towards the capital cost.

The development work on the mine has expanded to meet the increased tonnage of ore mined during the year, which amounted to 1,549,933 tons of 4 per cent. ore yielding 54,446 tons copper, valued at £1,775,969. This compares with 36,049 tons, valued at £1,188,788, in 1932.

Shafting sinking and surface construction work have been commenced on the ore-body three miles north of the present mine; this new section is called Mindola and will be a separate mining undertaking, there being a low-grade section of ore between the present Nkana workings and Mindola. Copper production was 5,000 tons of blister copper in December; the landed cost per ton of blister copper in Europe is £20. The construction work on the refinery and at Mindola has given additional employment for which the figures, in December, 1933, were: Europeans 791, natives 5,292, compared with 391 Europeans and 2,153 natives at the end of 1932. The Nkana smelter is handling the concentrates from Mufulira at a contract price per ton of blister copper produced.

Ferro-cobalt alloy is being produced from the converter slags in an electric furnace; the exported product contained 260,941 lb. of cobalt.

Mufulira Mine.—De-watering of the mine was started in July and was completed in 2½ months. Mining commenced in October and supplied the concentrator plant with high-grade ore, which was supplemented by lower-grade ore from a surface stock pile; this combine supply of ore enabled 750 tons of ore per day to be treated. The concentrates produced were railed to Nkana for smelting; 2,085 tons of concentrates produced 1,249 tons of copper.

The water in the mine is completely under control and the water table is dropping rapidly. For the present the plant will be supplied with ore extracted in the development work and stope preparation.

Broken Hill Mine.—Zinc production re-commenced at the beginning of the year, an average of 1,600 tons per month of electrolytic zinc being maintained. Vanadium production has been suspended owing to lack of demand, but small shipments from stocks in hand have been sold during the year. The hydro-electric power station ran at full capacity to supply the requirements of the zinc cells. The development of the outcrops on the mine has tended to give a clearer knowledge of the complex ore-bodies. The company have bought the Camarnor claims which are situated 20 miles east of Broken Hill and from which vanadium ore has been mined in the past. Only trenching with a view to prospecting the geological formation has been undertaken since the transfer of ownership. The sulphur requirements of the sulphuric acid plants are supplied by pyrite from the Iron Duke mine, in Southern Rhodesia, which belongs to the Rhodesia Broken Hill Company. The limestone and manganese ore required in the treatment plant are obtained from the vicinity of the mine.

New Jessie Mine.—Gold has been won from a new strike on the Jessie claims. Various outcrops of reef have been prospected on the claims and some of them are promising. A small cyanide plant has been erected to treat the sand dumps and is obtaining a good return. In October the power plant and battery were thoroughly overhauled and renovated. Four Europeans and 201 natives are employed.

The Sasare West Mine.—This is a small gold property tributed from the North Charterland Exploration Company (1910) Limited which is producing 100 ounces of gold per month. The gold reef is being followed down and appears to be consistently payable.

Nchanga Mine (Chingola) Developing Mines.—No work is being done on the mine, but the surface pile of high-grade mixed sulphide and oxide copper ore has been railed to Nkana for treatment. The stock-pile is now depleted; 910 tons of ore were railed, from which 92 tons of copper were produced.

Chambeshi, Bwana, M'Kubwa, Kansanshi, and Luiri gold areas have remained closed down during the year.

Prospecting.

Rhokana Concession (Rhodesian-Congo Border Concession and Nkana Concession).—1,574 square miles were systematically prospected and mapped by geologists, several small deposits of gold and copper being located.

Loangwa Concessions.—Thirteen geologists were engaged in examining 4,800 square miles of the concessions. Three gold-bearing quartz veins and four coal deposits were discovered.

Rhodesia Minerals Concession.—Numerous traces of copper mineralization and low values in alluvial gold in stream gravels were found during the geological prospecting of 700 miles of the concession. Three geologists were employed, one being engaged for two months in trenching a number of good quartz veins.

The North Charterland Exploration Company (1910) *Limited.*—The Company has entered into an agreement granting the exclusive prospecting rights over its area for a period of years to the Loangwa Concessions Limited, who will systematically prospect it and will have the right to peg out mining locations.

Three tributing agreements were granted, but the tributes have not been actively worked; small quantities of gold were obtained from prospecting on them.

General.

The copper mines have gained a firm footing in the European market owing to their ability to supply at a profit in spite of the low price for the metal; this has been reflected in the steady increase of production during the year, and further expansion is anticipated.

The export of electrolytic copper in 1934 will bring the products of these mines into another promising market. The whole of the electrolytic zinc produced on the Broken Hill mine is sold under contract at a premium on the market price for spelter. Cobalt is proving a valuable by-product of the Nkana ore-body. No new mines have been opened in the concession areas.

Mineral Production.

The following table shows the mineral production during 1933 :—

		£	s.	d.
Gold	**2,588·21 ounces**	**10,993**	**19**	**0**
Silver	**25·42 „**	**1**	**18**	**0**
Copper	**104,204·55 tons**	**3,402,896**	**1**	**0**
Lead	**73·4 „**	**838**	**18**	**0**
Zinc	**18,541·50 „**	**291,764**	**1**	**0**
Vanadium	**79,153 lb.**	**51,449**	**9**	**0**
Manganese Ore	**5,367·44 tons**	**8,051**	**2**	**0**
Mica	**3,333 lb.**	**499**	**19**	**0**
Cobalt	**260,941 „**	**79,064**	**13**	**0**
		3,845,560	**0**	**0**

The total value of the minerals produced in 1932 was £2,562,489 6s.

VII.—COMMERCE.

The value of merchandise imported during the year under review amounted to £1,931,829, as against £1,864,902 in 1932, an increase of £66,927 or 3·6 per cent. In addition, Government stores to the value of £40,592 and specie to the value of £7,769 were imported.

The total exports of merchandise were valued at £3,715,396, as compared with £2,675,248 in 1932, an increase of £1,040,148 or 38·9 per cent. In addition, specie to the value of £31,958 was exported.

During the first half of the year 1933, imports were considerably below those of the corresponding period of 1932, but from August onwards trade steadily improved and by the end of the year a small increase in trade imports over 1932 was shown. This improvement can be viewed with satisfaction and is an indication that the territory is gradually recovering from the difficult period experienced during 1932. The mining industry maintained a constant output during 1933 and regular and fixed employment for the mining community has had the effect of stabilizing trade conditions in that industrial area.

There are no noticeable increases or decreases of the trade with individual countries as compared with the figures for 1932, but the total percentage of our import trade with the British Empire shows a slight increase at the expense of imports from foreign countries. This can be attributed to the increased preference to Empire countries granted under the tariff as a result of the Ottawa Agreements. Japan supplies a very small percentage of our imports and this trade shows a slight decrease as compared with 1932.

The tables given in subsequent paragraphs reveal increased importations as compared with 1932 of articles used in the mining industry; blasting compounds, which are received from the Union of South Africa, now constitute an important item. The big drop shown on animals, agricultural and pastoral products and foodstuffs is accounted for by the restrictions which were in force due to foot and mouth disease in Southern Rhodesia and the Union of South Africa.

The export trade is almost entirely dependent on minerals, and the increase in the value of exports in 1933 reflects the increase in copper produced.

The trade balance is in favour of exports to the extent of £1,783,567 and in the previous year (1932) it was £810,346.

The following figures show the value of imports of merchandise and the value of exports—excluding specie—for the past ten years :—

Year.	*Imports.* £	*Exports.* £
1924	662,642	454,057
1925	1,284,025	432,997
1926	1,667,584	484,382
1927	1,957,138	755,525
1928	2,366,317	847,068
1929	3,602,417	899,736
1930	4,862,722	885,976
1931	5,140,548	1,178,515
1932	1,864,902	2,675,248
1933	1,931,829	3,715,396

Imports.

The following summary furnishes a comparison of the value of imported merchandise during the years 1930 to 1933 which originated from British and from foreign countries :—

Imports from :	*1932* £	*1931* £	*1930* £	*1933* £
Union of South Africa	**395,018**	**854,635**	**543,328**	404,540
Southern Rhodesia	**328,959**	**517,327**	**656,961**	346,261
United Kingdom and other British Possessions	**670,465**	**2,423,617**	**2,197,416**	732,072
Total British Empire	**1,394,442**	**3,795,579**	**3,397,705**	1,482,873
Foreign Countries	**470,460**	**1,344,969**	**1,465,017**	448,956
Total Merchandise	**£1,864,902**	**£5,140,548**	**£4,862,722**	£1,931,829

For the purpose of illustrating the routes of trade, the following table shows the value of merchandise received from the Union of South Africa and Southern Rhosesia and directly from overseas during the years 1930 to 1933 :—

Imports from :	*1932* £	*1931* £	*1930* £	*1933* £
Union of South Africa	**451,144**	1,467,722	**947,026**	502,643
Southern Rhodesia	**914,537**	**1,483,074**	2,101,016	857,248
Imported from overseas	**499,221**	**2,189,752**	1,814,680	571,938
Total	£1,864,902	£5,140,548	£4,862,722	£1,931,829

The following table illustrates the comparative value of the principal classes of imports during the years 1929 to 1933 :—

	1932	1931	1930	1929	1933
	£	£	£	£	£
Animals (living) ...	29,036	68,315	71,032	27,668	367
Foodstuffs, etc. ...	262,221	468,297	457,870	302,675	197,810
Ales, Spirits, Wines, etc. (potable) ...	84,485	145,686	174,504	108,888	74,475
Spirits (non-potable)	1,523	4,564	2,032	1,344	1,400
Tobacco	61,622	92,124	88,203	59,336	53,432
Textiles, Apparel, Yarns, Fibres ...	319,835	579,192	609,741	592,442	308,423
Metals, Metal Manufactures, Machinery and Vehicles ...	391,531	2,504,339	2,206,841	1,595,084	486,546
Minerals, Earthenware, Glasses and Cement	132,251	257,910	304,207	205,014	176,292
Oils, Waxes, Resins, Paints and Varnishes	142,811	244,379	286,951	184,021	126,318
Drugs, Chemicals and Fertilizers	52,828	91,623	87,920	80,256	64,175
Leather, Rubber and manufactures thereof	57,032	133,080	117,628	87,907	58,854
Wood, Cane, Wicker and manufactures thereof	51,493	152,421	208,427	152,851	48,092
Books, Paper, and Stationery	36,260	71,294	62,415	52,967	34,805
Jewellery, Timepieces, Fancy Goods, etc.	29,778	59,804	63,546	49,959	25,419
Miscellaneous ...	212,196	267,520	121,405	102,005	275,421
Total Imports ...	£1,864,902	£5,140,548	£4,862,722	£3,602,417	£1,931,829

Exports.

The following table shows the value of the total exports during the years 1930 to 1933 :—

	1932	1931	1930	1933
	£	£	£	£
Domestic exports	2,436,170	988,441	768,848	3,588,609
Imported goods re-exported ...	239,078	187,030	108,147	126,787
Articles exported through the post...	included in above.	3,044	8,981	included in above
Total merchandise exported ...	2,675,248	1,178,515	885,976	3,715,396
Specie	30,437	30,430	23,565	31,958
Grand Total	£2,705,685	£1,208,945	£909,541	£3,747,354

The following summary furnishes a comparison of the value of exports to the Union, Southern Rhodesia, the United Kingdom and other British Possessions, and foreign countries, distinguishing domestic exports and imported goods re-exported, during the years 1930 to 1933 (excluding specie for all years and articles exported through the post for the years 1930 and 1931) :—

Domestic Exports.	*1932*	*1931*	*1930*	*1933*
	£	£	£	£
Union of South Africa	29,300	57,527	54,230	60,325
Southern Rhodesia	31,544	30,182	19,112	18,766
United Kingdom and other British Possessions	778,024	323,884	539,705	1,179,719
Foreign Countries	1,597,302	576,848	155,801	2,329,799
Total Domestic Exports... ...	£2,436,170	£988,441	£768,848	£3,588,609
Imported Goods Re-Exported.	£	£	£	£
Union of South Africa	74,881	73,685	16,459	30,896
Southern Rhodesia	124,108	80,989	66,676	68,480
United Kingdom and other British Possessions	7,504	3,470	17,004	14,941
Foreign Countries	32,585	28,886	8,008	12,470
Total Imported Goods re-exported	£239,078	£187,030	£108,147	£126,787

The following table illustrates the comparative value of the principal items of domestic exports for the years 1929 to 1933 :—

	1932	*1931*	*1930*	*1929*	*1933*
	£	£	£	£	£
Animals (living)	11,793	18,913	2,458	8,928	16,673
Hides, Skins and Horns	8,725	19,807	13,486	39,165	8,547
Ivory	2,305	3,309	3,883	8,922	2,257
Butter...	78	429	76	551	33
Wheat	6,652	1,451	2,870	13,855	2,017
Maize, including other cereals in the grain	1,006	18,031	16,545	25,567	13,774
Maize meal	1,034	6,173	4,818	17,781	495
Pulse	44	211	667	1,040	1
Tobacco (unmanufactured)... ...	39,209	33,346	57,163	70,310	35,196
Cotton (raw)	280	—	5	158	—
Copper (all kinds)	2,087,620	505,204	226,382	236,716	3,114,618
Lead	—	—	—	37,729	—
Vanadium	32,266	17,871	24,710	16,389	—
Vanadic Oxide (fused)	164,752	73,760	—	—	19,638
Other ores	—	—	14,352	34,904	—
Zinc	1,088	200,675	341,660	262,611	275,834
Gold	41,277	35,390	26,511	3,441	6,833
Silver	66	58	48	12	20
Lime	1,294	866	930	940	1,835
Wood, manufactured and partly manufactured	23,414	29,937	17,053	20,316	36,829

Note.—1931 figures amended to include Congo Basin trade.

VIII.—WAGES AND COST OF LIVING.

The labour position, which at the end of 1932 had become acute, has altered very little during the year. There is a large superfluity of native labour in the territory, and employers have only been able to utilize a small proportion of those who offered their services. At the end of 1933 the number of Africans in employment amounted to about 39,350, as compared with approximately 42,000 at 31st December, 1932, and 79,000 in December, 1931, and there was a tendency throughout the year for wages to decline. So far as the number of natives employed in mining is concerned, there is a slight increase over the 1932 figures.

A comparison of the figures for 1932 with those for 1933 reveals that decreases took place in the numbers employed in the building trade, agriculture, railways, and in Government service, while there were slight increases in manufactures, mining, and domestic service. There is a drop of 11 per cent. in the number engaged in agriculture, 11 per cent. in the building trade, 19 per cent. in Government service, and 34 per cent. on railway works.

The engaging of labour by the various recruiting organizations has come to a complete standstill, and the Rhodesian Native Labour Bureau, which recruited natives for work in Southern Rhodesia, has gone out of business. In July the Southern Rhodesia Government asked that natives should be informed that there were few prospects of employment in that territory, and numbers who have travelled south in the hope of obtaining work returned unsuccessful to their homes.

As the years pass on and experience is obtained it becomes more possible to assess the reaction of industrial employment upon the social life of the people and upon the tribal system. It has been observed that the flow of labour is seasonal and the supply fluctuates on parallel lines from month to month; the greater number coming out in the lean months when the food supply in the villages is running low, and returning home about the harvest time. It is also worthy of note that there is a definitely perceptible inferiority in the physique of the labour that offers itself voluntarily compared with labour recruited through recognized labour agencies. The number of desertions from work has fallen to a negligible figure, and while this is no doubt largely due to the fact that work is difficult to obtain, it is also accounted for by the fact that the general conditions of employment have improved during recent years.

It is difficult to estimate the effect of the economic conditions in the territory on the native community. The people in the reserves and in native areas are self-supporting and do not suffer the discomforts and privations which follow lean years in highly industrialized communities. The possession of money is not at the present time a very vital matter to the bulk of the African population, but the meeting of tax obligations during the past year has been a severe strain for many and there has been little or no balance left over for the acquisition of simple luxuries.

Africans in employment receive, in addition to their pay, either a cash allowance in lieu of rations or food in accordance with a scale laid down by law. The staple diet of the African is meal obtained from cereals, but meat, salt, and vegetables are also issued to employees. The cost of the minimum monthly ration varies from about 9s. in the towns to about 4s. to 6s. in country areas. Wages on the mines have altered very little, but in agriculture and most of the trades there is a tendency towards a lower rate, which in the case of manual labour has been reduced from 10s. to 7s. 6d. and from 7s. 6d. to 6s. in some areas.

Wages range as follows :—

Clerks : from £2 to £7 per month.
Artisans : from 30s. to £4 per month.
Labourers : Mines surface from 17s. 6d. to 22s. 6d. per month.
    Mines underground from 30s. to 37s. 6d. per month.
    Agriculture from 6s. to 10s. per month.
    Railways from 12s. 6d. to 20s. per month.
    Roads from 10s. to 15s. per month.

The cost of living for Europeans is governed mainly by the cost of transport. Transport charges, even in the case of places on the railway, add considerably to the price of commodities. When transport by motor or other means is necessary, as it is in the case of places off the line of rail, the average price is still further increased.

The average price of various commodities is as follows :—

	Average.	
	s.	*d.*
Bread, per lb. loaf	0	8
Local flour (1st grade), per lb.	0	7½
Patna rice, per lb.	0	7
Mazawatta tea, per lb.	3	11
Sugar (white granulated), per lb.	0	7¾
Coffee (av. loose and tinned), per lb.	2	7
Butter, per lb.	3	0
Bacon, per lb.	2	7
Eggs (European farms), per doz.	2	8
Eggs (native), per doz.	1	0
Milk, per pint	0	4
Beef, per lb.	0	9½
Soap (Sunlight), per packet	2	3
Kerosense, tin of 4 gallons	17	5
Motor spirit (Shell), per gallon	3	6

The cost of clothing is approximately 75 per cent. higher than European prices.

IX.—EDUCATION AND WELFARE INSTITUTIONS.

For the education of European children there were, in 1933, controlled schools at Livingstone, Choma, Mazabuka, Lusaka, Broken Hill, Bwana Mkubwa, Ndola, Luanshya, and Nkana offering primary education up to Standard VII, with the additional subjects, Latin, French, and Algebra in Standards VI and VII and Geometry in Standard VII. There were schools at Mulendema, Silver Rest, Tara, and Fort Jameson (the last two for part of the year only), offering primary education up to Standard V. All these schools were under Government management, the tuition fees varying from 7s. 6d. to £1 17s. 6d. per quarter. The Convent School, Broken Hill, offering education up to the standard of the Southern Rhodesia Junior Certificate Examination, and Mrs. Jeffrey's school at Fort Jameson were controlled schools but under private management. During the year a number of small uncontrolled schools also remained open.

Boarding accommodation was available for girls at the Beit School, Choma, and for boys at the Codrington School, Mazabuka, the boarding fees being £12 10s. per quarter, and for boys and girls at Lusaka School, the boarding fees being £9 per quarter, all three being under Government management, and at the Convent School, Broken Hill, under private management.

Forty-seven teachers were employed in the controlled schools under Government management, the enrolment at the end of 1933 being 880, a decrease of 92 compared with the 1932 figures. In addition, 71 children were attending controlled schools under private management and 62 were receiving education through the Southern Rhodesia correspondence classes.

Education for natives in Northern Rhodesia is still mainly provided through the agency of mission societies. These, however, receive financial support from Government and professional guidance from the inspecting officers of the Native Education Department.

Fourteen of the mission societies operating in the country maintain village elementary schools, boys' and girls' boarding schools, and teacher training institutions recognized as eligible for Government grants. A total sum of £13,561 was directly distributed amongst them in recurrent grants during the financial year. This amount included a grant of £1,000 from the Beit Railway Trustees, £250 from the Carnegie Corporation, and £1,560 from the Barotse National Fund, the latter being distributed among three societies carrying on educational work on Barotseland.

Recurrent expenditure on Native Education during the financial period 1st April to 31st December, 1933, amounted to :—

	£
From Government Revenue	18,246
Beit Railway Trust	1,750
Carnegie Corporation	810
	£20,806

Recurrent expenditure on education under the Barotse Trust Fund for the financial year 1933-34 was approximately £4,580.

Since the year 1929 the sum of £13,800, generously granted by the Beit Railway Trustees, has been spent on building and equipping the Jeanes, Normal and Middle-Elementary Schools at Mazabuka. In connection with the establishment of the Native Trades School at Lusaka, buildings to the value of £7,000 have been erected during 1932 and 1933 by means of appropriations from Loan funds. A further sum of £1,610 was granted to mission societies for schools buildings.

Owing to the growth of an inspectorate during the last few years, it is becoming possible to carry out more frequent inspections and to ensure that the moneys paid by Government are being utilized satisfactorily and that a steady improvement in the standard of education is being maintained.

Fifty-four African teachers passed the written part of the Government Certificate Examinations during the year. There are now 427 natives who have passed the written section of the examination and 330 who have been given certificates after inspection of their practical work.

Two hundred and ninety-four male and 20 female students are now attending teacher training courses in training schools or are in middle schools preparatory to entering definite training courses. Annual returns, however, show that the Government and the mission societies employed on 31st December, 1933, some 1,819 teachers in 1,707 schools and sub-grade schools. The majority of these teachers must still be classed as catechists or evangelists in charge of so-called " bush " schools and have never had an adequate course of professional training.

Approximately 450 certificated teachers were in the service of missions at the end of the year and qualified for the Government grant-in-aid.

One hundred and twenty-three European teachers and 45 European technical instructors were engaged in native education during the year.

Seventeen Europeans and 17 African teachers and instructors, including the staff of the Barotse National School, comprised the staff of the Native Education Department.

Returns, which must be regarded as approximate, show that 13,290 boys and 6,205 girls attended recognized schools, while roughly 58,000 children attended sub-grade schools. Seven hundred pupils are at present attending Government elementary and middle schools including the Barotse National School which is maintained entirely by the Barotse National Trust Fund. It is estimated that there are about 250,000 children of school age in Northern Rhodesia.

The foregoing figures give some idea of the magnitude of the task of improving the standard of village elementary education to which Government and mission societies are devoting themselves. The Jeanes Training School, established by Government at Mazabuka, is an important and effective agent in the work. At present there are 21 selected mission teachers being trained as Jeanes teachers. Their wives also receive training in hygiene, child-welfare, and domestic subjects such as cooking, sewing, etc.

At Mbereshi (London Missionary Society) women teachers are being trained along Jeanes lines. A grant of £500 per year is given towards the cost of their training, half being borne by Government and half by the Carnegie Corporation. There are twenty girls' boarding schools subsidized by Government, with an enrolment of approximately 500 pupils. Domestic and vocational training is an important feature of the curricula of these girls' schools.

Boys receive training as carpenters, masons, and bricklayers at the Barotse National School, at Mbereshi (London Missionary Society), and to a lesser degree at several other mission stations. The Government Trade School for the training of carpenters, masons, and bricklayers at Lusaka will be opened early in 1934.

Government has also established an elementary and middle boarding school for boys at Mazabuka and elementary and middle co-educational schools at Ndola and Kasama. The Government Normal School at Mazabuka trains teachers for Government requirements and for the smaller missions which have no training schools of their own.

The proportion of recurrent expenditure (including grants from Trust funds) on native education to the total expenditure of the territory was at the rate of 3·9 per cent.; the amount spent per head of native population on native education was approximately 4·86d., but it must be borne in mind that much the greater part of native education is carried out by the various missions, and it is impossible to compute with any accuracy what their educational services represent in terms of monetary expenditure. If it were possible to arrive at such a sum, the figure of 4·86d. given above would be very largely increased.

X.—COMMUNICATIONS AND TRANSPORT.

Railways.

The Railway from Southern Rhodesia via the Victoria Falls to the Belgian Congo passes through North-Western Rhodesia and branch lines serving the Roan Antelope, Nkana, and Mufulira copper mines radiate from the main line at Ndola. Three through passenger trains, on which dining cars and sleeping accommodation are available, run weekly in each direction over the main line. In addition, local mixed trains with second-class and native accommodation run daily in each direction between Livingstone and Ndola. No dining-cars are attached to these latter trains, but stops are made at a convenient place sufficiently long to allow of passengers taking a meal at the local hotel. In addition to these, a regular goods-train service is in operation for the conveyance of goods and mineral traffic, and loads of 1.300 tons in the northward direction are regularly obtained over long sections by these latter trains.

Transport to stations in the Barotse valley is by barge along the Zambezi river, but for rapid transport light aeroplanes are now being used to Mongu, where there is a Government aerodrome. There is no sleeping accommodation on the barges, which are made fast to the river bank for the night whilst travellers camp on shore.

Roads.

The roads of the territory are of earth with the exception of the portion of the Great North road which runs from the Victoria Falls to Livingstone—a distance of some eight miles—which is bitumen-surfaced.

The arterial road system consists of three main routes, viz., the Great North road from Livingstone, which runs adjacent to the railway as far as Kapiri Mposhi (460 miles) where it turns north-east to Abercorn and Mpulungu on Lake Tanganyika, a total distance of 982 miles. The principal towns and Government stations on this route are Kalomo, Choma, Mazabuka, Lusaka, Broken Hill, Mpika, Kasama, and Abercorn. At Mpulungu the lake steamer connects with Kigoma on the Tanganyika Railway.

The Congo Border road branches off from Kapiri Mposhi and traverses the copper belt, Bwana Mkubwa, Ndola, Nkana, Nchanga, and Solwezi being the principal town passed *en route*. From Solwezi this road turns south and passing through Kasempa and Mumbwa joins the Great North road again 45 miles south of Broken Hill. The length of the Congo Border road is 650 miles.

The Great East road leaves the Great North road at Lusaka and proceeds to Fort Jameson and the Nyasaland border, where it connects up with the Nyasaland road system. The distance to Fort Jameson is 384 miles and this town is 12 miles from the Nyasaland border.

In addition to the above main routes, 4,900 miles of secondary roads connect the settled areas and Government stations throughout the territory.

The roads generally are passable for traffic during nine months of the year, but during the rainy season from December to April traffic is restricted to 7,000 lb. gross loading.

The arterial roads have, with the exception of the Congo Border road, been bridged and culverted with permanent structures. On the Great East road the Luangwa Bridge, 850 ft. long, was completed in November, 1933, and opened to traffic. This bridge was presented by the Beit Trust.

On other roads, water-ways are crossed by bush timber bridges. A number of pontoons are provided at other major river crossings, for the use of which the Government charges a moderate fee.

Travellers can be accommodated at hotels and rest-houses at suitable points on all the arterial road systems.

Postal.

The following statistical table shows a triennial comparison of correspondence dealt with :—

	Received.		
	1933	*1932*	*1931*
Letters	**2,102,828**	**2,541,422**	**3,472,612**
Post Cards	**49,764**	**47,684**	**83,554**
Newspapers	**507,598**	**1,266,226**	**916,764**
Bookpackets	**650,468**		**831,376**
Parcels	**45,448**	**50,216**	**67,184**
Registered articles	*	**72,982**	**91,676**
	3,356,106	**3,978,530**	**5,463,166**

* Included above.

	Despatched.		
	1933	*1932*	*1931*
Letters	**1,889,342**	**2,436,070**	**3,292,220**
Post Cards	**28,470**	**59,852**	**80,500**
Newspapers	**75,608**	**480,610**	**169,728**
Bookpackets	**340,574**		**416,052**
Parcels	**17,706**	**13,104**	**19,760**
Registered articles	**87,464**	**80,694**	**123,604**
	2,439,164	**3,070,330**	**4,101,864**

The volume of undelivered correspondence dealt with in the Returned Letter Office was 17,179, as compared with 27,369 in 1932.

Business transacted during the year as compared with the two preceding years is shown in the appended table.

	1933	*1932*	*1931*
	£	£	£
Stamps sold	**21,936**	**21,331**	**22,723**
Money Orders issued ...	**33,623**	**32,056**	**74,967**
Postal Orders issued ...	**35,485**	**33,886**	**47,715**
	69,108	**65,942**	**122,682**
Money Orders paid	**20,915**	**29,774**	**31,409**
Postal Orders paid ...	**10,655**	**10,910**	**16,330**
	31,570	**40,684**	**47,739**
TOTAL	**100,678**	**106,626**	**170,421**

"Cash-on-delivery" parcels.

	1933	*1932*	*1931*
Number	7,783	7,803	8,436
Value	£17,288	£19,111	£22,904
Average value per parcel ...	£2·2	£2·4	£2·7

Telegraphs.

The main telegraph route runs beside the railway from the Victoria Falls Bridge to the Congo Border, with branches from Ndola to Luanshya, Ndola to Nkana and thence to Mufulira. Fort Jameson is connected with the Nyasaland system; Kasama and Abercorn with the Tanganyika system.

The volume and value of traffic handled was as follows :—

	1933	*1932*	*1931*
Paid telegrams	**49,265**	**65,534**	**103,495**
Official telegrams	**16,262**	**22,336**	**23,218**
Number of words	**859,204**	**1,097,094**	**1,648,791**
Delivered	**58,060**	**77,826**	**110,800**
Re-transmissions	**108,902**	**248,272**	**400,726**
Net revenue	**£8,001**	**£9,621**	**£16,084**

Telephones.

(*a*) *Exchanges.*—Automatic telephone exchanges were opened for public service at Luanshya, on 18th May, and Mazabuka, on 1st November. A temporary automatic exchange was installed at Lusaka on 21st August and the permanent automatic exchange was completed on the 31st December.

A small manual exchange was opened at Choma on 8th September and a temporary manual exchange at the temporary Government offices, New Lusaka, on 13th February.

A small number of public subscribers were connected with the Nkana Mine exchange, and similar facilities were offered at Mufulira and Bwana Mkubwa.

(*b*) *Trunk Communication.*—During 1931 and 1932 the revenue from exchange rentals included payments by Government departments. Free service was granted from the 1st April, 1933. No charge is made for Government trunk calls.

Revenue.

	1933	*1932*	*1931*
	£	**£**	**£**
Exchange rentals*	**2,987**	**3,332**	**1,521**
Call office and trunk fees ...	**2,058**	**941**	**277**
Miscellaneous	**83**	**12**	**—**
	£5,128	**£4,285**	**£1,798**

*** Excluding rentals due by Government Departments.**

Wireless.

(*a*) *Aeronautical Services.*—Aeronautical wireless stations have been installed at Mpika and Broken Hill for radiocommunication services principally in connection with the Imperial Airways Cape to Cairo Air Route. Both are equipped for point-to-point communication by means of short-wave emissions and for communication with aircraft in flight, on a wave-length of 900 metres.

(*b*) *Internal and International Services.*—In addition to aeronautical radiocommunication services, Broken Hill and Mpika maintain a public service, as Mpika is otherwise isolated. Short-wave stations have been installed at Abercorn, Livingstone, Mongu, and Fort Jameson.

International communication is maintained by Broken Hill with the contiguous territories of Tanganyika, Southern Rhodesia, Uganda, and the Union of South Africa.

Revenue is included in telegraph revenue.

Civil Aviation.

Considerable progress has been made in air communications in Northern Rhodesia since the last report was published and this is in a great measure due to the generosity of the Beit Trustees, who authorized a further sum of money during the year for the establishment of additional aerodromes and landing grounds throughout the territory.

The four main air routes are as follows:—

(1) Livingstone to Mongu via the Zambezi River, on the banks of which emergency landing grounds have been established at Sesheke, Senanga, and Sioma.

(2) Livingstone to Ndola with aerodromes at Kalomo, Mazabuka, Kafue, Lusaka, Chisamba, Broken Hill, Kapiri Mposhi, and Ndola.

(3) Lusaka to Fort Jameson with landing grounds at Hot Springs, Rufunsa Valley, Beit Bridge, and two more which are yet to be constructed between the Beit Bridge and Fort Jameson.

(4) Imperial Airway route from Broken Hill to the Tanganyika border with aerodromes at Broken Hill, Kanona, Mtuga, Mpika, Shiwa Ngandu, Chinsali, and Isoka, and emergency landing grounds at Ndabala, Kalonje, and Mwinimpanza.

The Broken Hill aerodrome is equipped with a hangar, workshops, and long and short-wave wireless stations.

Short-wave wireless stations are also established at Mpika, Abercorn, and Mongu. All aerodromes and landing grounds have been maintained in first-class condition throughout the year and are capable of receiving practically all types of aircraft.

Aerodromes are also established at Abercorn, Mwinilunga, Kalabo, and Mumbwa, and it is very possible that this number will be increased in the coming year. There is also an emergency landing ground at Leopard's Hill which is midway between Broken Hill and the Southern Rhodesia border on the Imperial Airways route. The service of the Imperial Airways Limited has run with regularity throughout the year and there have been few occasions when, owing to adverse weather conditions, air-liners have been behind schedule.

The introduction of the Atalanta monoplane type of air-liner in place of the Hercules biplanes took place in January as part of the programme for accelerating service between London and Cape Town.

North-bound liners now spend the night at Broken Hill instead of Salisbury.

The Northern Aviation Company Limited sold their only machine to the Syndicat des Transports Aeriens of Elisabethville, and this Company now run an air-mail service between Elisabethville and Broken Hill to coincide with the arrival of the Imperial Airways machines at the latter place.

At the end of the year there were no private companies operating in Northern Rhodesia.

XI.—BANKING, CURRENCY, AND WEIGHTS AND MEASURES.

The Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial and Overseas) operate in the territory, with branches or agencies at the more important centres. The total deposits at these banks at 31st December, 1933, amounted to £764,224 as compared with £938,219 at the end of the previous year, a decrease of over 18 per cent. The Post Office Savings Bank deposits amounted to £15,890 at 31st December, 1933, as compared with £13,365 at the end of the previous year.

There is no Land or Agricultural Bank in the territory.

The Bank Notes and Coinage Ordinance, 1931, Bank Notes and Coinage (Amendment) Ordinance, 1932, and Proclamation No. 3 of 1933 prescribe as legal tender at par throughout the territory (*a*) Bank of England notes, (*b*) bank notes issued by the Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial and Overseas) at their offices at Salisbury, Southern Rhodesia, (*c*) the standard coinage in use in England, and (*d*) silver coinage of Southern Rhodesia, for any amount not exceeding £2 sterling in value. The enactment of the first Ordinance on 12th October, 1931, marked the departure of Northern Rhodesia from the gold standard of currency.

The English standards of weights and measures are in force.

XII.—PUBLIC WORKS.

Owing to the general economic situation, only a small amount of building work under the Loan programme was undertaken during the year. The following is a brief summary of the major works completed or under construction :—

Abercorn.—A wireless station was completed departmentally and is working satisfactorily.

Fort Jameson.—Two residential houses were completed departmentally.

Lusaka.—A post office which had been commenced in the previous year was completed by contract early in this year.

Livingstone.—A maternity home provided by the generosity of the Beit Railway Trust was completed by contract early in the year.

Mazabuka.—A repeater station in connection with the telephone service was completed departmentally.

Mwinilunga.—An administrative office was completed by contract, the materials being supplied to the builder by Government.

Namwala.—One residential house and a court-house were completed departmentally, and two existing houses were renovated departmentally.

Balovale.—A residential house was completed by contract, the materials being supplied to the builder by Government.

Kasama.—Three residential houses were undertaken departmentally. Two were completed and the third is due for completion early in the New Year.

Fort Rosebery.—An administrative office was completed and three existing houses renovated, all the work being carried out departmentally.

It will be noted that most of the work undertaken this year was carried out departmentally, as the work was on outstations away from the railway line.

Lusaka (New Capital).—Fifteen residential houses were completed having been commenced in the previous year.

Four other residential houses of a large type together with six blocks of flats, each containing eight flats, were let to contract and are all due for completion next year.

Communications.

The improvement of the Great North road between Livingstone and Lake Mpulungu by the installation of bridges, culverts and deviations was completed by the end of 1933 except for some bridge and deviation work in the vicinity of Kalomo.

A further 47 miles of road improvement was completed in 1933, making 67 miles in all, on the Congo Border road between Ndola and Nchanga, and permanent bridges and culverts have been constructed between Kapiri Mposhi and Solwezi.

On the Great East road all bridges and culverts between Lusaka and Fort Jameson and from Fort Jameson to the Nyasaland border have been completed, including the 850-ft. bridge over the Luangwa river, presented to the territory by the Beit Trust.

The bridge and culverting programme on the arterial roads started in 1931 was completed by the end of 1933, with the exception of a short length of the Congo Border road between Solwezi and Wangwa G.N. road, 78 steel bridges and 362 culverts, besides numerous permanent drifts and watersplashes, being constructed.

XIII.—JUSTICE, POLICE, AND PRISONS.

Justice.

Justice is administered by the High Court of Northern Rhodesia and by the Magistrates' and Native Commissioners' Courts subject to appeal to and review by the High Court.

During the year, the High Court dealt with 158 civil matters as against 160 in the preceding year, and heard nine actions and twelve appeals. Sixteen petitions in bankruptcy were presented. Sessions were held during the year at points along the line of railway in April and October. Seventeen criminal cases came before the Court exclusive of reviews of judgments in the lower Courts; these latter numbered 349, involving 578 convictions of one or more persons, of which 401 were approved, 90 quashed, 19 altered, 39 referred back and subsequently approved, and one referred back and subsequently quashed; in the remaining 28 cases the accused were bound over.

Native Courts.

The Native Courts Ordinance was passed at the same time as the Native Authority Ordinance and was, like the latter Ordinance, applied to all the territory, with the exception of Barotseland, as from 1st April, 1930.

Native Courts are established and constituted by the Governor and are of two grades. In addition to administering native law and custom, in so far as such is not repugnant to natural justice and morality, they are given power under the Native Court Rules to try certain offences against the laws of the territory. Their power to inflict punishment is strictly limited and the Magistrates and Native Commissioners' Courts have jurisdiction to revise and review their judgments, and in certain instances to order the re-trial of a case. District Officers may sit as assessors in such Courts.

The Governor has the power to suspend and dismiss members, and Provincial Commissioners have a similar power, subject to a report being made to the Governor on each occasion that it is exercised.

The general conduct of the Native Courts has been satisfactory and the progress made is encouraging. Disputes and offences appear to be dealt with adequately and judgments given in accordance with native custom.

Police.

The total number of cases dealt with by the police during 1933 was 9,337, a decrease of 1,173 under the figures for 1932, made up as follows :—

Decrease in Offences by Europeans.—Common Law, 104; Statute Law, 313.

Decrease in Offences by Natives.—Common Law, 129; Statute Law, 627.

The figures quoted below will indicate the number of more serious cases dealt with as compared with 1932 :—

			Total.	
Crime.	*Europeans.*	*Natives.*	*1933*	*1932*
Affray	**4**	**130**	**134**	**149**
Arson	**1**	**15**	**16**	**24**
Assault, Common	**19**	**141**	**160**	**223**
Assault O.A.B.H.	**9**	**115**	**124**	**163**
Indecent Assault	**—**	**17**	**17**	**22**
Indecent Curiosity	**—**	**3**	**3**	**16**
Burglary	**1**	**159**	**160**	**94**
Embezzlement	**1**	**—**	**1**	**1**
Forgery and Uttering	**5**	**31**	**36**	**197**
Fraud and False Pretences	**18**	**21**	**39**	**97**
Housebreaking and Theft	**2**	**195**	**197**	**185**
Theft (all forms)	**21**	**1,014**	**1,035**	**1,034**
Manslaughter	**3**	**18**	**21**	**17**
Murder	**—**	**19**	**19**	**24**
Attempted Murder	**—**	**1**	**1**	**14**
Perjury	**2**	**3**	**5**	**11**
Rape and Attempted Rape	**—**	**14**	**14**	**27**
Robbery	**—**	**9**	**9**	**1**
Assaults on Police	**1**	**17**	**18**	**23**
Indecent Exposure	**—**	**2**	**2**	**4**
Extortion	**—**	**1**	**1**	**5**
Incest	**—**	**1**	**1**	**1**

These figures include only those cases taken to Court by the police.

Although there was a general decrease in the number of cases, there was an increase in the number taken at Livingstone and Lusaka stations; there was also an increase in burglary and housebreaking offences.

It was found necessary to carry out further retrenchments of both European and native personnel during the year, and several senior European non-commissioned officers retired and were not replaced.

There was a distinct decrease in the total number of cases taken during the year 1933. This is no doubt due to the closing of certain stations at the end of 1932 and during 1933.

Prisons.

There are five central prisons in the territory, situated at Livingstone, Broken Hill, Kasama, Mongu, and Fort Jameson, and local prisons are in existence at all other Government stations. These total 28 and were placed under the control of the Commissioner of Prisons as from the 1st April, 1933.

Committals to all prisons during the year were as follows :—

	Committals.
Livingstone Central Prison...	1,113
Broken Hill	1,034
Fort Jameson...	351
Mongu ...	363
Kasama	251
All local prisons	10,415
Total ...	13,527

The daily average number of prisoners for all prisons was 1,382·69.

The daily average of sick prisoners was 78·87.

Two natives were executed during the year, as against five in 1932.

There were twenty-two deaths from natural causes in 1933.

XIV.—LEGISLATION.

During the year under review Sessions of the Legislative Council were held in March, August, and November. In all, 44 Ordinances were passed, of which 31 were amendments to the existing law.

The more important Ordinances are :—

Arbitration. (No. 3 of 1933.)
Bank Notes and Coinage (Amendment). (No. 24 of 1933.)
Criminal Procedure Code. (No. 23 of 1933.)
Dangerous Drugs (Amendment). (No. 31 of 1933.)
Emergency Tax. (No. 15 of 1933.)
High Court. (No. 18 of 1933.)
Juvenile Offenders. (No. 41 of 1933.)
Legislative Council (Amendment). (No. 34 of 1933.)
Motor Traffic (Amendment) (No. 2.) (No. 33 of 1933.)
Native Tax (Amendment). (No. 39 of 1933.)
Northern Rhodesia Police. (No. 44 of 1933.)
Repatriation. (No. 13 of 1933.)
Subordinate Courts. (No. 36 of 1933.)

Of the principal ordinances, the Criminal Procedure Code, the High Court Ordinance, and the Subordinate Courts Ordinance are important new laws affecting the judiciary. The Procedure Code is almost identical with that recently enacted in the East African Dependencies, and its enactment in this territory necessitated so many amendments to the existing Courts Ordinances that the latter were re-cast and the opportunity taken of bringing them up to date.

The Arbitration Ordinance embodies the provisions of the Arbitration Act of 1889 and the Geneva 1923 Protocol on arbitration and 1927 Convention on foreign arbitral awards. The Emergency Tax Ordinance imposes, for one year only, a graduated tax on gross receipts. The Juvenile Offenders Ordinance makes provisions, on the lines of the Children and Young Persons Act, for the treatment of juvenile offenders. The Northern Rhodesia Police Ordinance is consequential upon the recent separation of the military and police branches of the Northern Rhodesia Police. The Repatriation Ordinance enables the Governor-in-Council to repatriate persons who are unemployed and for whom there is no prospect of employment.

Of the amendment Ordinances, the Bank Notes and Coinage Ordinance (No. 24) provides that small denomination coins which the Southern Rhodesia Government propose to issue shall be legal tender within Northern Rhodesia; the Motor Traffic Ordinance (No. 33) provides for the issue of circular licences on the English model instead of the system of metal discs formerly in force in the territory; the Native Tax Ordinance (No. 39) extends the existing provision for payment in grain or stock to "other produce"; the Dangerous Drugs Ordinance (No. 31) gives effect to the Geneva Convention of July, 1931, for limiting the manufacture and regulating the distribution of narcotic drugs; and the Legislative Council Ordinance (No. 34) provides that a candidiate for election shall make a deposit of £50 which shall be forfeited if he does not poll the requisite number of votes.

The more important subsidiary legislation is as follows :—

	Government Notice.
Air Navigation (Colonies, Protectorates and Mandated Territories) (Amendment) Order, 1932.	(No. 36)
Arbitration (Foreign Awards) No. 1 Order, 1930	(No. 74)
„ „ „ No. 2 „ „	(No. 74)
„ „ „ No. 1 „ 1931	(No. 74)
„ „ „ No. 2 „ „	(No. 74)
„ „ „ No. 3 „ „	(No. 74)
„ „ „ No. 4 „ „	(No. 74)
Cattle Diseases Ordinance (Cap. 87) —	
Cattle Diseases (Prohibited Imports) (Bechuanaland) Regulations	(No. 9)
Cattle Diseases (Prohibited Imports) (Bechuanaland) Regulations Schedule amended.	(No. 15
Cattle Diseases (Prohibited Imports) (Union of South Africa) Regulations.	(No. 32)
Cattle Diseases (Prohibited Imports) (Union of South Africa) (Amendment) Regulations.	(No. 156)
Foot and Mouth Disease Regulations	(No. 143)
„ „ „ (Amendment) Regulations	(No. 159)
Control of Dogs Ordinance (Cap. 89) —	
Control of Dogs Regulations	(No. 1)
„ „ (Amendment) Regulations...	(No. 26)
„ „ „ No. 2 Regulations	(No. 117)

	Government Notice.
Customs and Excise Duties Ordinance, 1931—	
Customs Agreement Southern Rhodesia	(No. 94)
,, ,, Union of South Africa: Amendment of Annexure.	(No. 110)
Customs and Excise Duties (Rebates, Refunds and Suspensions) (Amendment) Regulations.	(No. 11)
Customs and Excise Duties (Rebates, Refunds and Suspensions) (Amendment) (No. 2) Regulations.	(No. 140)
Customs and Excise Duties (Suspensions) Regulations	(No. 115)
Customs and Excise Regulations	(No. 177)
Extradition and Fugitive Offenders Ordinance (Cap. 9)—	
Application to Kingdom of Iraq	(No. 122)
,, ,, Portuguese Republic	(No. 138)
Fugitive Offenders Act, 1881—	
The Cochin State (Fugitive Offenders) Order in Council, 1933 ...	(No. 160)
High Court Ordinance (Cap. 18) High Court Rules	(No. 193)
Plant Pests and Diseases Ordinance, 1931—	
Importation of Plants Regulations	(No. 22)
Citrus Importation (Mocambique) Prohibition Regulations ...	(No. 66)
Plant Pests and Diseases (Coffee) Regulations	(No. 152)
Public Health Ordinance (Cap. 96)—	
Infectious Diseases—Prohibited Imports Japanese Shaving Brushes.	(No. 200)
Regulation of Railways Ordinance (Cap. 129)—	
Railways By-Laws	(No. 189)
Telegraphs Ordinance (Cap. 141)—	
Telegraph Regulations	(No. 210)

Orders in Council.

Air Navigation (Colonies, Protectorates and Mandated Territories) (Amendment) Order, 1932.	(No. 36)
Northern Rhodesia (Native Reserves) Amendment Order in Council, 1933.	(No. 81)
Northern Rhodesia (Native Reserves) Amendment Order (No. 2) in Council, 1933.	(No. 119)
Northern Rhodesia Order in Council, 1924—	
Boundaries of the Awemba and Luangwa Provinces, amendment of.	(No. 139)
Boundaries of the Batoka Province, amendment of	(No. 149)
Magisterial Districts and Courts, revocation of	(No. 202)
Rules relating to High Court and Magistrates' Courts, revocation of	(No. 178)
The Cochin State (Fugitive Offenders) Order in Council, 1933 ...	(No. 160)

There is no factory legislation and no legislative provisions for sickness, old age, etc.

As regards compensation for accidents, the Workmen's Compensation Ordinance, Chapter 121 of the Revised Edition of the Laws, is a comprehensive enactment which follows generally the principles of the English Act and applies to non-natives only. Provision for natives is contained in Part VI of the Employment of Natives Ordinance, Chapter 62 of the Revised Edition of the Laws of Northern Rhodesia.

XV.—PUBLIC FINANCE AND TAXATION.

The revenue and expenditure for the past seven years have been :—

Year.	*Revenue.*	*Expenditure.* *Recurrent.*	*Expenditure.* *Extraordinary.*	*Total Expenditure.*
	£	£	£	£
1926–27	421,035	421,584	33,867	455,451
1927–28	474,683	475,175	43,631	518,806
1928–29	541,606	496,399	28,769	525,168
1929–30	672,289	532,367	22,160	554,527
1930–31	830,254	668,083	36,903	704,986
1931–32	856,376	793,798	26,258	820,056
1932	649,538	777,290	13,216	790,506
1933	718,283	773,985	4,894	778,879

These figures exclude repayments to the Imperial Exchequer of grants-in-aid received in 1924-25 and 1925-26.

Loan expenditure on capital development amounted to :—

£566,801 at 31st March, 1931.
£1,216,681 at 31st March, 1932.
£1,475,130 at 31st December, 1932.
£1,821,123 at 31st December, 1933.

The public debt consists of £1,250,000 5 per cent. inscribed stock 1950-70 issued in 1932 and £1,097,000 3½ per cent. inscribed stock 1955-65 issued in 1933.

The assets of the territory at the 31st December, 1933, consisted of :—

	£
Cash	541,805
Investments	22,310
Advances pending the receipt of grants from Beit Railway Trust	17,931
Sundry debtors	29,381
Stores	36,400
	£647,827

The liabilities were :—

	£
Post Office Savings Bank depositors	15,924
Native Reserves Fund	10,397
Sundry creditors	62,118
Northern Rhodesia 3½ per cent. Loan 1955-65 unexpended balance	424,851
	513,290
Surplus assets	134,537
	£647,827

The main headings of taxation and yields during 1933 were as follows :—

	£
Licences	33,878
Native Tax	104,343
Stamp Duties	7,545
Customs and Excise Duties	204,018
Income Tax	88,903
	£438,687

Licence fees are principally derived from trading, vehicles, arms, shooting of game, sale of liquor, and prospecting of minerals.

The annual native tax rates and the yields in 1933 are as follows :—

	£
Barotse Province (excluding Balovale district)—12s. 6d.	10,748
Barotse Province (Balovale district)—7s. 6d.	
Eastern Provinces—10s.	93,595
Western Provinces—12s. 6d.	
Alien natives—12s. 6d.	
	£104,343

The tax is increased automatically by 1s. if not paid within nine months of the date on which it is due. All male natives are liable to pay one tax annually if they have reached eighteen years of age and are not indigent by reason of age, disease, or such other cause as the District Officer may accept. Women and children are not liable and there is no tax on additional huts or on plural wives. It is not the practice to enforce payment on local natives who have been absent from the territory for periods exceeding twelve months if they are able to produce a tax receipt from an adjoining territory for that period and if they have not cultivated lands locally. The persons liable to tax are recorded in registers compiled under the supervision of District Officers. Collection is direct by officials of the Government and not by Native Authorities. Recovery for default is by distress through the Courts. The tax may be accepted in grain or stock or other produce at the discretion of the District Officer, but the practice is rare. The law does not impose labour in lieu of tax. Thirty per cent. of the Barotse tax is paid to a Trust Fund and applied directly to expenditure on native interests in the Barotse area.

Stamp duties, denoted by adhesive revenue stamps, are payable on all documents executed or received in the territory. The principal duties are :—

	£	s.	d.
Agreements	0	0	6
Bills of Exchange			
Not exceeding £50	0	0	6
Exceeding £50 and not exceeding £100 ...	0	1	0
Every additional £100	0	1	0
Cheques	0	0	2
Land Grants			
Not exceeding 10 acres	0	10	0
Rising to not exceeding 3,000 acres ...	4	0	0
Every additional 1,000 acres	1	0	0
Equitable Mortgages			
Every £100	0	2	0
Receipt when sum exceeds £1	0	0	2
Conveyances			
Every £50 or value of property sold or conveyed	0	10	0

For Customs purposes Northern Rhodesia is divided into two zones known as the Congo and Zambesi Basins. The Congo Basin can roughly be taken to be all the territory north of a line drawn on a map of Northern Rhodesia in a south-westerly direction from Fife in the north-east to the border where the territory joins the south-east corner of the Belgian Congo. The remainder of the territory to the west and the south constitutes the Zambesi Basin. The Zambesi Basin is by far the more important part of the territory industrially, and more than 90 per cent. of the total trade is transacted in this area.

The Zambesi Basin is subject to Customs Agreements with Southern Rhodesia, the Union of South Africa, and with the Bechuanaland Protectorate, Basutoland, and Swaziland. The Agreements provide in general for considerable rebates upon interchange of local manufactures, and for free interchange of raw products with limitation in regard to leaf tobacco.

The Congo Basin part of the territory is within the area defined by the Berlin Conference of 1885, and under the terms of the Convention revising the General Act of Berlin of 26th February, 1885, and the General Act and Declaration of Brussels, 2nd July, 1890, signed at St. Germain-en-Laye, 10th September, 1919, commercial equality within this area must be granted to nationals of the Signatory Powers and those of States Members of the League of Nations which adhere to the Convention. This part of the territory is therefore excluded from the terms of the Customs Agreements mentioned in the preceding paragraph.

British preference is given in the case of the following classes of goods, which are mainly liable to *ad valorem* rates of duty :— clothing, blankets and rugs, cotton piece-goods, and all articles usually imported for household and native use, the duty on British products being in almost every instance 10 per cent. or 12 per cent. and the duty on foreign products varying from 15 to 25 per cent.; in the case of cotton and silk piece goods, shirts, singlets, and rubber shoes, from foreign countries, the tariff provides for alternative specific rates if the duty should be greater. Agricultural, electrical, mining, and other industrial machinery, pipes and piping, metals and metal manufactures imported for industrial purposes, if of British manufacture, are free of duty, and if of foreign origin are subject to an *ad valorem* duty of 5 per cent., except foreign electrical machinery which is 15 per cent.

Specific rates of duty apply to practically all imported foodstuffs and to spirituous liquors, wines, beers, and tobacco; upon the latter items no preference is granted except under the terms of the Customs Agreements with the neighbouring territories in the south, but varying rates of preference are granted to foodstuffs of British origin.

The Customs Tariff contains three scales of duty :—

Scale " *A* "—in respect of goods not entitled to preferential treatment;

Scale " *B* "—in respect of goods from the United Kingdom and British Possessions;

Scale " *D* "—Congo Basin duties.

Ports of Entry.

The following are the ports of entry into and exit from Northern Rhodesia :—Ndola, Livingstone, Fort Jameson, Broken Hill (free warehousing ports), Abercorn, Solwezi, Fort Rosebery, Chingola, Kawambwa, Mpika, Balovale, Mwinilunga, Isoka, Chiengi, Feira, Kazungula, Sesheke, Lundazi, and Mufulira.

Customs Agreements.

The terms of the agreement with the Union of South Africa provide for the transfer of the Union rates or the Northern Rhodesia rates if higher when imported goods are removed from the Union to Northern Rhodesia and for the transfer of Union rates when imported goods are removed from Northern Rhodesia to the Union. In respect of local manufactures removed between the two territories, Government payments of 12 per cent. of the export value of foodstuffs and 6 per cent. of the export value of all other local manufactures are transferred except in the case of cigarettes, tobacco, beer, wines and spirits, which are directly taxed at tariff rates subject to the following rebates : cigarettes and tobacco manufactures, 75 per cent.; beer and wines, 50 per cent.; and spirits, 25 per cent. Free interchange of raw products is provided for, but Northern Rhodesia leaf tobacco exported to the Union is limited to 400,000 lb. per annum free of duty, and similarly Union leaf tobacco exported to Northern Rhodesia is limited to 50,000 lb.

The terms of the new agreement with Southern Rhodesia provide for a uniform tariff so far as possible and the transfer of the higher duty imposed in either territory when imported goods are removed from one territory to the other. In respect of local manufactures removed between the two territories, Government payments of 12 per cent. of the export value of foodstuffs and 6 per cent. of the export value of all other local manufactures are transferred, except in the case of beer, wines, and spirits, which are directly taxed at tariff rates subject to the following rebates:—beer and wines, 50 per cent.; spirits, 25 per cent. Cigarettes and tobacco of Southern Rhodesia or Northern Rhodesia manufacture are not liable to import rates upon removal from one territory to the other but are subject to a transferred payment of the appropriate excise duties.

On Union manufactures removed between Southern Rhodesia and Northern Rhodesia the payment previously received from the Union Government is transferred between Southern and Northern Rhodesia Governments.

Income-tax on individuals is charged as follows:—

	s.	*d.*
For every £1 of the first £100 of chargeable income	**0**	**6**
,, ,, £1 ,, next £100 ,, ,, ...	**1**	**0**
,, ,, £1 ,, ,, £100 ,, ,, ...	**1**	**6**
,, ,, £1 ,, ,, £100 ,, ,, ...	**2**	**0**
,, ,, £1 ,, ,, £100 ,, ,, ...	**2**	**6**
,, ,, £1 ,, ,, £500 ,, ,, ...	**3**	**0**
,, ,, £1 ,, ,, £500 ,, ,, ...	**3**	**6**
And for every £1 in excess of £1,500	**4**	**0**

The following deductions are allowed:—personal £300; for a wife £420; for children £100 each; for a dependant £50; for life insurance, premiums not exceeding one-sixth of the income remaining after deducting the personal deduction.

An individual who is a non-resident and not a British subject is eligible for the personal deduction of £300 only. Company income-tax is at the rate of 4s. in the £1. Relief is allowed in respect of United Kingdom and Empire income-tax.

APPENDIX.

PUBLICATIONS OF GENERAL INTEREST RELATING TO NORTHERN RHODESIA.

Bertrand, A.—"The Kingdom of the Barotse, Upper Zambesi".

British South Africa Company's Reports on the Administration of Rhodesia.

Bradley, K. G.—"Africa Notwithstanding"
"Hawks Alighting" } Published by Lovat Dickson & Co.

Burton, Sir Richard.—"The Lands of the Cazembe". Translation of Dr. Lacerda's diaries and information about Portuguese expeditions. London. Published by the Royal Geographical Society, 1873.

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Decle, L.—"Three Years in Savage Africa". Methuen & Co., London. Describes Bulawayo in 1892, and also the customs of the native races.

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Evans, I. L.—"The British in Tropical Africa". Cambridge University Press, 1929.

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Lyell, D. D.—"Hunting Trips in Northern Rhodesia". Cox, London.

Mackintosh—"Coillard of the Zambesi".

Maloney, J. A.—"With Captain Stairs to Katanga". Sampson, Low, Marston & Co., London. 1893.

Marshall-Hole, H.—"The Making of Rhodesia".

Melland, F. H.—"In Witch-bound Africa". 1923, and many others of an ethnological and local nature published by the same author.

Moffat, Thomson J. & Fairweather, W. G.—"Tribal Areas in Northern Rhodesia." Government Printer. Northern Rhodesia. 3/-.

Moore, J. E. S.—"To the Mountains of the Moon". Hurst & Blackett, London. 1901.

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Mowbray, J. M.—"In South Central Africa". Constable. 1912.

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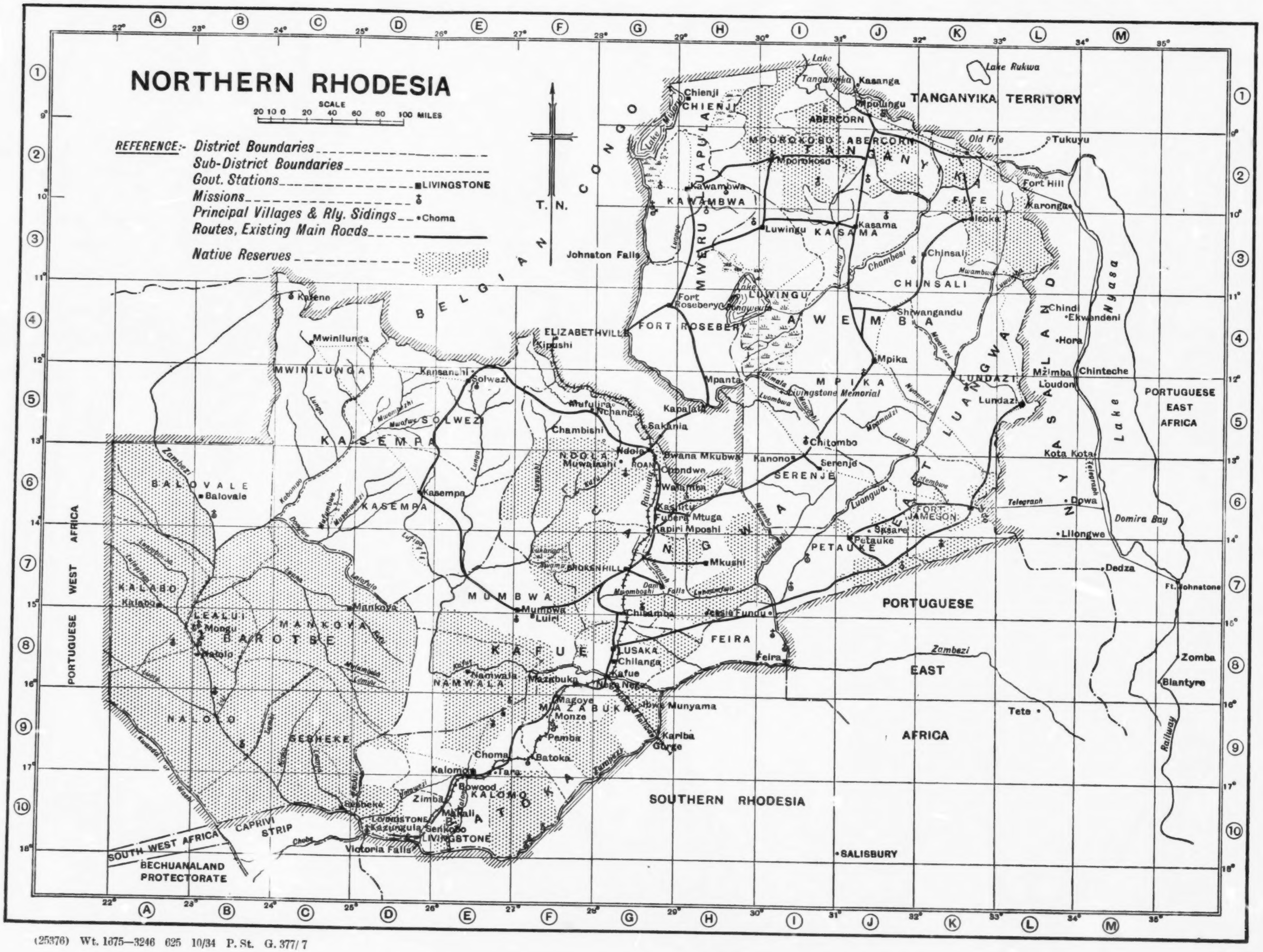
A Bibliography of "Publications having reference to the East African Territories" has been compiled by the Royal Colonial Institute Library.

Title.	*Price.*	*Agents.*
Annual Report, Health Department, 1931.	Not fixed.	Crown Agents, London.
Annual Bulletin, Department of Agriculture, 1933.	2s. 6d.	Government Printer, Livingstone.
Annual Bulletin, Department of Animal Health, 1932.	2s. 6d.	Do. do.
Notes on the General Geology of Northern Rhodesia (J. A. Bancroft and R. A. Pelletier).	1s. 6d.	Secretary for Mines, Ndola, Northern Rhodesia.
Annual Report, Customs Department.	8s. 3d.	Controller of Customs, Livingstone.
Quarterly Statistics of the External Trade in Northern Rhodesia.	5s.	Do. do.
Northern Rhodesia Customs and Excise Handbook.	7s. 6d.	Do. do.
Northern Rhodesia Blue Book (Annual).	10s. 6d. (1s. postage).	Government Printer, Livingstone.
"The Laws of Northern Rhodesia." Two volumes.	£3 3s. and £2 2s. for both volumes.	Waterlow and Sons, Limited.
Annual Volume of Ordinances ...	8s. post free.	Government Printer, Livingstone.
Annual Volume of Government Notices.	8s. post free.	Do. do.
Northern Rhodesia Government Gazettes (issued bi-monthly).	13s. 6d. p.a. post free.	Do. do.
Settlement in Northern Rhodesia	Gratis.	H.M. East African Trade and Information Office.
Travel in Northern Rhodesia ...	Gratis.	Do. do.
Sport in Northern Rhodesia ...	Gratis.	Do. do.
Hand Map of Northern Rhodesia	2s. 0d. post free.	Government Printer, Livingstone.
Hand Map of Victoria Falls and Livingstone.	4s. 0d. post free.	Do. do.



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B

Reports, etc., of Imperial and Colonial Interest

MALTA.
Report of Royal Commission, 1931. [Cmd. 3993.] 3*s*. 6*d*. (3*s*. 11*d*.).
Minutes of Evidence. [Colonial No. 68.] 5*s*. (5*s*. 9*d*.).

IMPERIAL CONFERENCE, 1930.
Summary of Proceedings. [Cmd. 3717.] 2*s*. (2*s*. 2*d*.).
Appendices to the Summary of Proceedings. [Cmd. 3718.] 4*s*. (4*s*. 4*d*.).
Report of the Conference on Standardisation. (Including Resolutions adopted by the Imperial Conference). [Cmd. 3716.] 3*d*. (3½*d*.).

COLONIAL OFFICE CONFERENCE, 1930.
Summary of Proceedings. [Cmd. 3628.] 2*s*. (2*s*. 2*d*.).
Appendices to the Summary of Proceedings. [Cmd. 3629.] 3*s*. (3*s*. 3*d*.).

OVERSEAS SETTLEMENT.
Report of the Overseas Settlement Committee for the period 1st April, 1932, to 31st March, 1933. [Cmd. 4391.] 3*d*. (3½*d*.).

KENYA.
Native Affairs Department Annual Report for 1932. . 3s. (3s. 4d.).
Report by the Financial Commissioner (Lord Moyne) on Certain Questions in Kenya. May, 1932. [Cmd. 4093.] 2*s*. (2*s*. 2*d*.).

KENYA, UGANDA, AND THE TANGANYIKA TERRITORY.
Railway Rates and Finance. Report by Mr. Roger Gibb, September, 1932. [Cmd. 4235.] 1*s*. 6*d*. (1*s*. 7*d*.).

TANGANYIKA TERRITORY.
Report by Sir Sydney Armitage Smith, K.B.E., C.B., on a Financial Mission. [Cmd. 4182.] 2*s*. 6*d*. (2*s*. 8*d*.).
East African Agricultural Research Station, Amani. Fifth Annual Report, 1932–33. [Colonial No. 86.] 1*s*. (1*s*. 1*d*.).

BECHUANALAND PROTECTORATE.
Financial and Economic Position. Report of Commission, March, 1933. [Cmd. 4368.] 3*s*. 6*d*. (3*s*. 9*d*.).

SWAZILAND.
Financial and Economic Situation. Report of Commission. [Cmd. 4114.] 2*s*. 6*d*. (2*s*. 9*d*.).

MALAYA.
Report of Brigadier-General Sir S. H. Wilson, G.C.M.G., K.C.B., K.B.E., on his visit during 1932. [Cmd. 4276.] 1*s*. (1*s*. 1*d*.).

SEYCHELLES.
Financial Situation. Report of Commission, July, 1933. [Colonial No. 90.] 1*s*. 3*d*. (1*s*. 5*d*.).

MAURITIUS.
Financial Situation. Report of Commission, December, 1931. [Cmd. 4034.] 4*s*. 6*d*. (4*s*. 10*d*.).

WEST INDIES.
Report of the Closer Union Commission. (Leeward Islands, Windward Islands, Trinidad and Tobago.) [Cmd. 4383.] 1*s*. (1*s*. 1*d*.).
Report of a Commission appointed to consider problems of Secondary and Primary Education in Trinidad, Barbados, Leeward Islands, and Windward Islands. [Colonial No. 79.] 2*s*. (2*s*. 2*d*.).

BRITISH HONDURAS.
Financial and Economic Position. Report of Commissioner, March, 1934. [Cmd. 4586.] 4*s*. 6*d*. (4*s*. 10*d*.).

BRITISH GUIANA.
Financial Situation. Report of Commission, June, 1931. [Cmd. 3938.] 1*s*. (1*s*. 2*d*.).

THE LEEWARD ISLANDS AND ST. LUCIA.
Report by Sir Sydney Armitage Smith, K.B.E., C.B., on a Financial Mission, October, 1931. [Cmd. 3996.] 2*s*. (2*s*. 2*d*.).

PALESTINE.
Report on Immigration, Land Settlement and Development, by Sir John Hope Simpson, C.I.E., 1930. [Cmd. 3686.] 3*s*. (3*s*. 3*d*.).
Appendix to Report, containing Maps. [Cmd. 3687.] 2*s*. (2*s*. 3*d*.).

All prices are net. Those in brackets include postage.

Obtainable from

HIS MAJESTY'S STATIONERY OFFICE

At the Addresses on the Title Page of this Report.

COLONIAL ANNUAL REPORTS

H.M. Stationery Office publishes the Annual Reports on the Social and Economic Progress of the Peoples of the Colonies and Protectorates, most of which contain a map of the Dependency concerned. More than 40 Reports appear each year and they are supplied at the Subscription price of 50s. per annum. (This rate does not include Mandated Territories.) Individual Reports may also be purchased and standing orders placed for their annual supply.

BAHAMAS.
BARBADOS.
BASUTOLAND.
BECHUANALAND PROTECTORATE.
BERMUDA.
BRITISH GUIANA.
BRITISH HONDURAS.
BRITISH SOLOMON ISLANDS PROTECTORATE.
BRUNEI, STATE OF
CAYMAN ISLANDS (JAMAICA).
CEYLON.
CYPRUS.
FALKLAND ISLANDS.
FEDERATED MALAY STATES.
FIJI.
GAMBIA.
GIBRALTAR.
GILBERT & ELLICE ISLANDS.
GOLD COAST.
GRENADA.
HONG KONG.
JAMAICA.
JOHORE.
KEDAH AND PERLIS.
KELANTAN.
KENYA COLONY & PROTECTORATE.
LEEWARD ISLANDS.
MAURITIUS.
NEW HEBRIDES.
NIGERIA.
NORTHERN RHODESIA.
NYASALAND.
ST. HELENA.
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Annual Report on the Social and Economic Progress of the People of

NORTHERN RHODESIA

1934

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ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF NORTHERN RHODESIA, 1934

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I.—GEOGRAPHY, CLIMATE, AND HISTORY.

Geography.

The territory known as the Protectorate of Northern Rhodesia lies between longitudes 22° E. and 33° 33′ E. and between latitudes 8° 15′ S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South West Africa, comprising in all an area that is computed to be about 290,320 square miles. The River Zambesi forms the greater part of the southern boundary; its two main northern tributaries are the rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

History.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown territory.

The Portuguese Governor of Sena, Dr. Lacerda, encouraged by the report of the half-breed Fereira who returned from Kasembe's capital, close to the eastern shores of Lake Mweru in June, 1798, decided to set out on the expedition he had planned the year before, and on 3rd July, 1798, left Tete for the north. He was accompanied by Father Francisco, Jose and Pinto, twelve officers and fifty men-at-arms, but failed to reach his goal, and died within a few miles of Kasembe's capital. Father Pinto led the remnants of the expedition back to Sena, and it is from Dr. Lacerda's diaries, which Father Pinto with great difficulty saved, that the first authentic history of what is now North-Eastern Rhodesia was taken. Dr. Lacerda was followed in the early 19th century by two Portuguese traders, Baptista and Jose, who brought back stories of the great interior kingdom of the Balunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the 16th to the 19th century. Very few historical facts are known about it, but the name of Mwatiamvo, the dynastic title of the paramount chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and in 1855 discovered the Victoria Falls, that the civilized world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls, were Serpa Pinto, Cameron, Selous and Arnot.

From the very early days when the hordes of migratory Bantu swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasions from stronger tribes on its borders, so much so, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambesi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time the population of the territory has been classified into seventy-three different tribes, the most important of which are the Wemba, Ngoni, Chewa, and Wisa in the north-eastern districts, the Rozi, Tonga, Luvale, Lenje, and Ila in the north-western districts, and the Senga, Lala, and Lunda, members of which are resident in both the eastern and western areas. There are some thirty different dialects in use, but many of them vary so slightly that a knowledge of six of the principal languages will enable a person to converse with every native in the country. Chinyanja is in use as the official language of the police and is probably the language most generally spoken by Europeans; it is in reality a Nyasaland language—the word means "Language of the Lake"—but it is also spoken to some extent round Fort Jameson. In many instances the tribes overlap and encroach upon each other, and it is not uncommon to find a group of villages of one tribe entirely surrounded by villages of another tribe. Many of the tribes on the borders extend into neighbouring territories; in some instances the paramount chief resides in a foreign country and only a small proportion of the tribe lives in Northern Rhodesia.

The chief invaders of the early part of the 19th century were the Arabs from the north, the Angoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the territory, and the Makalolo, an offshoot of the Basuto family, who in the beginning of the 19th century fought their way from the south through Bechuanaland and across the Zambesi under the noted Chief Sebitoani; they conquered the Batoka, the Masubia, and the Marozi and founded a kingdom which was distinguished by a comparatively high degree of social organization.

The duration of the Makololo kingdom was short, lasting between twenty and thirty years. Soon after the death of Sebitoani, the Marozi rebelled and massacred the Makololo to a man, keeping their women. As a result of this the influence of their occupation is still to be seen in the Sikololo language, which is largely spoken amongst the tribes near the Zambesi. The Marozi under Lewanika enlarged their kingdom by conquering several surrounding tribes, such as the Mankoya, the Malovale, and the Batoka. Beyond these limits their authority was both nebulous and ephemeral.

In the year 1891 Lewanika was informed that the protection of Her Majesty's Government had been extended to his country as he had requested that it should be, and on 17th October, 1900, the Barotse Concession was signed by him and his chiefs and representatives of the Chartered Company. The concession was confirmed in due course by the Secretary of State for the Colonies and under its terms the Company acquired certain trading and mineral rights over the whole of Lewanika's dominion, while the paramount chief was to receive, among other advantages, an annual subsidy of £850.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lakes Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in 1893 the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave-raiders were occasionally encountered on the north-east boundary and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavery. This social serfdom was brought to an end by the edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Before 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland-North Western Rhodesia Order in Council placed the Company's administration of the western portion of the country on a firm basis; it was closely followed by the North-Eastern Rhodesia Order in Council of 1900 which had a similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924. In that year the administration of the territory was assumed by the Crown in terms of a settlement arrived at between the Crown and the Company, and the first Governor was appointed on 1st April, 1924.

Climate.

There are considerable differences between various parts of the country. The Zambesi, the Luangwa and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November before the rains break, when the mean maximum is 97° in the Zambesi valley stations and 85° at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90·3° with a mean minimum of 64·5°, while the corresponding figures for the four months of the cold season (May to August) are 78·7° and 46·6°.

The following table gives representative temperatures for the territory experienced during 1934 :—

	Highest mean Max. °F.	*Month.*	*Lowest mean Min. °F.*	*Month.*	*Absolute Max. °F.*	*Month.*	*Absolute Min. °F.*	*Month.*
Livingstone, 3,150 ft. ...	**94·9**	**Oct.**	**50·5**	**July**	**101·9**	**Oct.**	**44·2**	**July**
Broken Hill, 3,920 ft. ...	**87·4**	**Oct.**	**50·[illegible]**	**July**	**97·0**	**Oct.**	**42·3**	**Sept.**
Isoka, 4,210 ft. ...	**90·8**	**Nov.**	**60·2**	**June**	**99·0**	**Nov.**	**55·0**	**June July**
Balovale, 3,400 ft. ...	**102·6**	**Oct.**	**48·4**	**July**	**106·0**	**Sept. Oct.**	**42·0**	**July**

Highest temperature ... ... 116° Kanchindu.
Lowest „ ... ... 33° Kasempa.

The rainy season usually commences in November and lasts until April. Slight showers occur to the north-east of the territory in August and to the north-east and north-west in September. In October the rains begin to spread over the whole territory, reaching a maximum in December.

The intensity of rainfall decreases in January, this falling-off appearing to be the nearest approach to the break in the rains, which is characteristic of the two seasonal areas of the central tropical zone.

In February the rains re-establish themselves over the whole of the central area of the territory, following much the same contour alignment as in December. In March the zone of heavy rainfall shifts well to the north and east. In April the rains have definitely moved north and in May have practically ceased.

The greatest rainfall recorded in 24 hours was at Petauke on 15th December, 1934, and was 6·30 inches.

II.—GOVERNMENT.

Central Administration.

The office of Governor was created by an Order of His Majesty in Council dated 20th February, 1924, and the first Governor assumed his duties on 1st April, 1924.

The Governor is advised by an Executive Council which consists of five members—the Chief Secretary, the Attorney-General, the Treasurer, the Secretary for Native Affairs, and the Director of Medical Services. Provision is also made for the inclusion of extraordinary members on special occasions.

The Order in Council provided that a Legislative Council should be constituted in accordance with the terms of the Northern Rhodesia (Legislative Council) Order in Council, dated 20th February, 1924, to consist of the Governor as President, the members of Executive Council *ex officio*, nominated official members not exceeding four in number, and five elected unofficial members.

In 1929 the number of elected unofficial members was increased to seven consequent upon the very considerable increase in the European population.

Provincial Administration.

For administrative purposes the territory was formerly divided into nine provinces, each of which was under a Provincial Commissioner responsible for his province to the Governor. The provinces were grouped together under five Provincial Commissioners in 1933 and as from 1st January, 1935, the number of provinces will be reduced to five. The provinces are divided into districts under the charge of District Commissioners responsible to the Provincial Commissioners.

Native Administration.

In 1929 the Native Authority Ordinance was passed and subsequently applied to all the territory with the exception of Barotseland, which was exempted from the application of the Ordinance on account of the rights which the paramount chief and his *khotla* (judicial and deliberative assembly) preserved under the concessions granted to the Chartered Company.

The Ordinance empowers the Governor to appoint in specified areas Native Authorities, consisting of one or more chiefs or other natives, to be responsible for the performance of the obligations imposed upon them by the Ordinance and for the maintenance of order and good government in the area. The Governor also has the power to suspend or dismiss members of such Native Authorities. The duties of the Authorities are clearly defined in the Ordinance, which confers upon them power to make rules for certain objects. It is the duty of all natives to assist such Native Authorities in the work of administration.

The system is developing and the work of the Authorities is improving as the chiefs gain experience.

Native treasuries have not yet been established, but steps are being taken to educate the Native Authorities in the matter of finance and the administration of public funds.

III.—POPULATION.

The first census of the territory took place on 7th May, 1911, prior to the amalgamation in the same year of North-Eastern and North-Western Rhodesia under the title Northern Rhodesia; the second was held on 3rd May, 1921, and the third on 5th May, 1931.

The following table shows the increase of population since 1911 (the figures for European population for 1931 are census figures, whilst all those for African population are taken from the reports of the Secretary for Native Affairs) :—

Year.	*Europeans.*	*Increase. per cent.*	*Africans.*	*Increase. per cent.*	*Proportion Africans to one European.*
1911	1,497		821,063		548·47
1921	3,634	143	979,704	19	269·59
1931	13,846	381	1,372,235	40	99
1932	10,553	*23·7	1,382,705	·76	131
1933	11,278	6·87	1,371,213	*·83	121·58
1934	11,464	1·65	1,366,425	*·33	119·21

* Decrease.

The increase in the number of Europeans between 1921 and 1931 was due to the influx which took place during the development of the copper mines in the Ndola district between 1927 and 1931. The mines had nearly completed construction towards the end of the year 1931 and a considerable number of Europeans left the territory in consequence.

The economic depression which set in towards the end of 1931 has been the cause of a further drop of 23·7 per cent. during 1932. In 1933 and 1934 an increase was brought about by the renewed activity at the copper mines. The figures given have been collected from the annual reports of District Commissioners throughout the territory and may be regarded as being reasonably accurate.

The numbers of Asiatics and non-native coloured persons in the territory at the 1931 census amounted to 176 and 425 respectively.

The African population is now estimated to be 1,366,425 which shows a decrease of 4,788 or ·34 per cent. on the previous year, and its average density through the territory is 4·7 to the square mile. The average birth-rate calculated on statistics taken at 411 villages with a population of 42,768 during 1934 was 52·9 per thousand, and the percentage of infantile mortality was 29·11 (infants under the age of one year 17·3 per cent., under two years 11·8 per cent.).

The European population at 11,464 shows an increase of 186 over 1933 or 1·6 per cent. The death-rate is 9·42 as compared with 9·13 during 1933 and 11·08 during 1931.

Vital Statistics.

	1929.	*1930.*	*1931.*	*1932.*	*1933.*	*1934.*
Number of deaths ...	93	163	210	117	103	108
Death-rate per 1,000 ...	9·32	13·58	15·16	11·08	9·13	9·42
Deaths of infants under 1 year of age.	21	28	28	24	13	15
Death-rate per 1,000 of births.	99·52	102·56	84·08	72·29	40·88	47·61

Births · 315

The crude birth-rate was 27·48 per mille as compared with 33·78 in 1933 and 34·94 in 1932.

Immigration.

9,192 Europeans entered Northern Rhodesia during 1934. This number includes immigrants, returning residents, visitors, and a small percentage of persons in transit. The immigrants numbered 1,726 of whom 1,596 were British; of the 130 aliens, 17 per cent. were citizens of the United States of America.

The following comparative table of immigrants shows the progress of the territory :—

1926.	*1927.*	*1928.*	*1929.*	*1930.*	*1931.*	*1932.*	*1933.*	*1934.*
756	1,038	1,066	1,861	3,651	1,702	615	801	1,726

Seventy-one persons with dependants were removed from the territory under the Immigration Ordinance. Of this number fifty-four were indigent, nine criminal, five illiterate, and three undesirable on economic grounds.

Accurate figures of emigration are not available.

Twenty-seven destitute persons were repatriated at Government expense to neighbouring territories or overseas—a considerable decrease on the 1933 total of 173 and the 1932 total of 409. Of the twenty-seven repatriations, twenty-six were effected during the first half-year, and the scale of repatriation has now returned to normal.

Asiatic Population.

The approximate Asiatic population as at 31st December, 1934, was 188, an increase of nine over 1933. All these Asiatics were British Indians with the exception of three Seychelles Islanders.

IV.—HEALTH.

The medical facilities available to the European and native populations in the past were maintained throughout the year, and were as follows :—

European Hospitals.

Livingstone.
Lusaka.
Broken Hill.
Ndola.
Kasama.
Fort Jameson.
Mongu.

Native Hospitals.

Livingstone.
Choma.
Mazabuka.
Lusaka.
Broken Hill.
Ndola.
Kasama.
Fort Rosebery.
Fort Jameson.
Mongu.
Balovale.

In addition to the above-mentioned hospitals, Government maintained twenty-five dispensaries on Government stations and thirteen in rural districts in charge of native orderlies. The rural dispensaries were visited periodically by the medical officer of the district.

Owing to the vastness of the territory and the lack of means of communication, the treatment of the African population presents considerable difficulty. It is hoped that the finances of the territory will improve in the near future and that it will be possible to establish the chain of rural dispensaries envisaged in 1931.

A new European hospital is under construction at Lusaka, and it is hoped that it will be ready for occupation in June, 1935.

A three-roomed hospital, for the use of the paramount chief and his family, was erected at Mongu in September by the Barotse Trust Fund.

A great deal of valuable medical work has been done by the various missions, who control twenty-seven hospitals under the supervision of doctors and trained nurses; these services to the natives are subsidized by Government to the extent of £2,950 per annum.

The large mines in the copper belt maintain their own medical staff and well-equipped hospitals in which they care for their employees. All destitute Europeans and unemployed natives are treated at Government expense, but where possible they are transported to the Government hospital at Ndola.

The railway maintained either full-time or part-time medical officers at Livingstone, Lusaka, Broken Hill, and Ndola, who gave medical treatment to railway employees as required.

School inspections.—Medical inspections of all European schools were carried out twice and parents advised as regards the health of their children.

The subsidies granted to dental surgeons at Livingstone, Lusaka, Broken Hill, Ndola, and Fort Jameson for the regular inspection and treatment of school children were continued throughout the year.

No appointments to the posts vacated in 1933 were made during the year, with the result that only existing health services were maintained, all medical officers performing the duties of medical officers of health in addition to their clinical duties.

However, despite the drastic economy measures, it is gratifying to note that the general health of the country throughout the year was good and no epidemic disease of great importance was recorded.

Malaria and Blackwater Fever.—A sum of £500 was provided in the 1934 Estimates for anti-malaria work, which has been continued in and around most townships, and results have been most encouraging.

The anti-mosquito measures adopted at the mines, especially at Luanshya, have proved of very considerable value, and are striking examples of what could be done were funds available.

The following table of deaths will indicate the general improvement of conditions since the commencement of the anti-malaria campaign. It is regretted that the mortality rate of blackwater has not improved a great deal, and it must be emphasized that most cases occur among indigent Europeans, living in unhygienic surroundings, over whom there is no control.

	1931.	*1932.*	*1933.*	*1934.*
Malaria ...	22	16	3	10
Blackwater ...	19	22	20	11

Trypanosomiasis.—Thirteen cases of this disease were reported during the year, the distribution being as follows. All these cases were natives and only one death occurred, at Choma.

Livingstone ex Bechuanaland	1
Choma	1
Luanshya	2
Mufulira	2
Nkana	3
Kasama	1
Fort Rosebery	1
Fort Jameson	2
	13

The case admitted to Livingstone hospital was brought in early in December from Kasane, Bechuanaland, together with a number of suspected cases for observation. No further cases have been reported from that district.

Typhoid.—Twenty-one European and forty native cases were reported during the year, with one native death at Nkana.

The distribution of these notifications is as follows:—

	Typhoid.		*Paratyphoid.*	
	European.	*Native.*	*European.*	*Native.*
Livingstone	6	5	4	—
Choma	2	—	—	—
Lusaka	1	—	—	—
Broken Hill	2	—	4	—
Luanshya	—	29	—	—
Nkana	—	1	—	—
Mwinilunga	2	—	—	—
Balovale	—	5	—	—
	13	40	8	—

Cerebro-spinal Meningitis.—Seven cases were reported during the year, all of which were natives. The distribution is as follows :—

	Cases.	*Deaths.*
Mazabuka	1	—
Lusaka	2	2
Ndola	1	1
Luanshya	1	—
Mufulira	1	—
Nkana	1	—
	7	3

Variola.—Sixteen cases were reported during the year, thirteen at Mumbwa and three at Lusaka. The outbreaks were of a mild form and no deaths occurred.

The fact that there were no other notifications is conclusive evidence that the extensive vaccination campaign has had the desired results.

Measles.—A severe epidemic was reported from Kalabo in the Barotse Province during August; 611 cases with 44 deaths were reported, all the deaths being amongst infants. All necessary precautions as regards isolation, etc., were taken and a further spread of the disease effectively checked.

Influenza.—The seasonal occurrence of this disease has been very marked during the year, especially at Livingstone and in the mining area. There has been a remarkable decrease in the mortality rate at Livingstone, as compared with previous years, and this is due partly to the fact that natives have begun to appreciate the advantages of seeking hospital treatment immediately, instead of being admitted in a moribund condition, and partly to the milder type of the infection.

The following percentages of deaths at Livingstone will illustrate these remarks :—

1932.	*1933.*	*1934.*
17·8	13	6·4

The following is a summary of cases which occurred during the year :—

	Cases.		*Deaths.*	
	European.	*Native.*	*European.*	*Native.*
Livingstone	165	969	—	46
Roan Antelope	88	312	—	—
Broken Hill Dev. Co. ...	64	133	—	—
Mufulira	108	169	—	—
Nkana	229	339	1	11

Rabies.—The occurrence of rabid dogs was reported from time to time and all persons suspected of being in contact with these animals were protected by inoculation.

Child Welfare.

The welfare clinics previously established at Livingstone, Lusaka, Ndola, and Luanshya functioned throughout the year, and reports received are most encouraging.

Livingstone.—The Livingstone clinic is run by the District Nursing and Welfare Association under the direction of the Medical Officer of Health, who is chairman of the Association, and funds are derived from grants received from Government, the Beit Trustees, Rhodesia Railways, Ltd., and the Municipality of Livingstone. The Government grant is £200 per annum. The nurse's duties are divided between the European and native welfare clinics, which are held twice weekly, the native clinic and dispensary at the location, and visits to sick people in the town.

The following figures show her activities during the year:—

	Cases.	*Attendances.*
Maramba dispensary (native) ...	866	12,540
Native welfare clinic	173	1.127
European welfare clinic	44	444

Lusaka.—The European and native clinics opened in September, 1933, did excellent work throughout the year. Mrs. F. Adam Thomson, M.R.C.S., L.R.C.P., was appointed in charge of the two clinics, and is paid by the Government. The moderate running expenses in connexion with the European clinic were defrayed by the local Welfare Association and all expenses of the native clinic, other than transport charges, which were met by Government, were paid out of the Beer Hall profits by the Management Board.

127 European children attended for treatment, which figure represents 75 per cent. of the children under 5 years of age, in the whole district. 6,499 native cases were treated, with 26,090 attendances.

The Medical Officer reports that the clinic is steadily growing more popular, especially with the native women, who are beginning to appreciate the value of ante-natal treatment.

No figures are yet available for the Ndola and Luanshya clinics, but periodical reports indicate that a great deal of work is being done for both sections of the community.

Native Labour.

The Roan Antelope, Nkana, Mufulira, and Broken Hill mines have been active throughout the year, and the number of natives employed increased from 11,861 in January to 16,904 in December. There is little or no recruiting done at present and this is due to general conditions of labour, which have been sufficient to induce thousands of natives to seek employment on the copper belt. All employees on these mines are housed and fed under hygienic conditions, and every attention is given to the sick. Modern ideas on health and hygiene are inculcated into the minds of the natives and there is no doubt that these men, when returning to their villages on the termination of their contracts, will not be satisfied to live under their normal conditions, and will thus spread this knowledge to the more remote areas.

The advancement of the native is only a matter of time, and the importance of these large native communities in close proximity to Europeans and under strict European supervision cannot be over-estimated.

V.—HOUSING.

European Government Housing.

Apart from the extensive building operations at the site of the new capital, no buildings were erected during the year.

The old Government houses and single quarters are brick buildings of the bungalow type, with large rooms and spacious verandahs, which are closed in with mosquito gauze. Outside kitchens and earth closets within convenient distance of the houses are provided.

Government buildings erected during the last three years are built on modern lines, with indoor kitchens and earth closets, water-borne sewage being installed where possible.

Buildings erected at the new capital during the year are of an entirely new design and are mostly double-storied. Six blocks of flats, each containing eight two-roomed units, kitchen, etc., Government House, and the new central offices were completed. A new European hospital and Nurses' Home have also been started.

All these buildings are provided with water-borne sewage systems, disposal being effected by means of septic tanks. The sanitary fittings are of standard modern design.

European Non-Government Housing.

Modern buildings, most suitable to this country, and equipped with every convenience, are to be found on all the mines on the copper belt. Most privately-owned residences throughout the territory are similar to the older type of Government houses. Owing to the economic position, little or no building was started during the year.

Native Housing.

Native housing throughout the territory, and especially in the urban districts, is a matter of great importance. In the more settled areas, especially on the railway line and in the mining areas, great strides in the right direction have been taken. Native employees on the mines are to-day housed in well-ventilated brick buildings. Separate kitchens, wash-houses and latrines are provided, and regular inspections are made to enforce cleanliness and to inculcate hygienic habits.

A model native servants' compound has been built at the new capital for a limited number of natives of the better type. The buildings are two-roomed and three-roomed and are a distinct improvement on any buildings erected in the past. The new native compound at the capital site is composed of brick buildings of the circular type, with outside kitchens, wash-houses and water-borne sewage.

Every effort, as far as funds will permit, is being made to induce natives in the rural districts to build better huts. Models of the type advocated are being built at all Government stations to serve as guest-huts for visiting chiefs and headmen, and all District Officers and missionaries have been given printed copies of Dr. de Boer's Report on the North-Eastern Districts, which contains full information regarding the type of hut required and general hints on hygiene and sanitation.

The economic and social development of the native is a matter of time, but there is no doubt that the organized control of natives in industrial areas will have the effect of inducing them to live under more hygienic conditions when eventually they return to their villages.

VI.—PRODUCTION.

Land and Agriculture.

Of the total area of the territory of approximately 275,000 square miles, some 13,700 square miles, or about 4½ per cent., have been alienated to Europeans. Most of the alienated land is used for grazing.

The following table illustrates the trend of arable farming since 1926. These figures and those in other tables relate only to settlers' holdings; no statistics of native production are available:—

Season.	*Maize.* *acres.*	*Tobacco.* *acres.*	*Wheat.* *acres.*	*Total under cultivation.* *acres.*
1926–27	44,837	6,719	2,780	69,837
1927–28	43,889	7,358	1,734	62,928
1928–29	39,215	3,232	2,572	67,207
1929–30	47,085	3,585	2,095	66,429
1930–31	42,974	2,328	1,594	76,092
1931–32	42,757	2,472	2,261	73,000*
1932–33	34,036	2,236	2,271	63,000*
1933–34	36,487	3,375	2,845	65,000*

* Estimated.

The final column includes acreages under minor crops, orchards and bare fallows.

The 1933-34 season was generally favourable to the production of summer cereals. The total rainfall was low but the rains were well distributed.

The maize crop was abundant and the average yield, 6·9 bags per acre, is equal to the record established in 1931-32. The acreage was slightly greater than that of the preceding season but is still considerably below the average of recent years. The locust damage was slight though a few farms suffered heavily from the depredations of young fliers in April. Statistics of maize production from 1927 onwards are summarized in the following table :—

Year ending 31st December.	*Area in thousands of acres.*	*Average yield in bags per acre.*	*Yield in thousands of bags.*	*Farm consumption in thousands of bags.*	*Surplus available for sale in thousands of bags.*
1927 ...	**45**	**5·6**	**250**	**36**	**214**
1928 ...	**44**	**4·2**	**184**	**32**	**152**
1929 ...	**39**	**5·1**	**202**	**33**	**169**
1930 ...	**47**	**4·3**	**202**	**37**	**165**
1931 ...	**43**	**4·5**	**194**	**33**	**161**
1932 ...	**43**	**6·9**	**296**	**46**	**250**
1933 ...	**34**	**3·6**	**122**	**31**	**91**
1934 ...	**36**	**6·9**	**251**	**38**	**213**

Wheat is grown almost exclusively as a winter crop under irrigation, and production is practically confined to the Lusaka district. There was an appreciable increase in acreage but, largely owing to rust, yields were inferior. Wheat production in recent years has been as follows :—

Year.	*Acreage.*	*Yield in bags of 200 lb.*	*Average yield per acre.*
1927	**2,780**	**10,586**	**3·8**
1928	**1,734**	**8,512**	**4·9**
1929	**2,572**	**11,838**	**4·6**
1930	**2,095**	**9,583**	**4·6**
1931	**1,594**	**5,627**	**3·6**
1932	**2,261**	**11,373**	**5·0**
1933	**2,271**	**11,579**	**5·1**
1934	**2,845**	**12,564**	**4·4**

Tobacco is the one important export crop and is grown chiefly in the Fort Jameson district, though interest has recently revived on the railway line. The season was not particularly favourable but nevertheless a fair quantity of exceptionally high-grade bright leaf was obtained and sold readily. The acreage under all types was 3,375, a very considerable increase on that of 1933, and the total crop was 1,576,000 lb. of cured Virginia leaf. Of this, 75,000 lb. was air-cured or sun-cured and the remainder flue-cured. Transport charges have decreased considerably during the last few years and the completion of the lower Zambesi bridge will obviate two handlings of baled tobacco *en route* to Beira, thereby reducing damage which has at times been considerable in the past.

Minor crops such as groundnuts, potatoes, sweet potatoes, and pulses are of trivial importance in comparison with maize, wheat, and tobacco. Increased demand stimulated the market-gardening industry and 830 tons of mixed vegetables were sold.

The territory continues to obtain the bulk of its fruit requirements from Southern Rhodesia and the Union of South Africa. Deciduous fruit trees are successful only in a few favoured localities, but citrus thrives in most places where irrigation is possible.

The equivalent of about 9,000 cases of locally-produced citrus fruit was sold.

Arable farming conditions showed considerable improvement on the railway line. Maize prices were high until the new crop came on the market but then fell to a low level owing mainly to competition with native grain traded at ridiculously low prices. Nevertheless it appears that the bulk of the European crop will be absorbed at prices which will be remunerative to the better growers, for labour charges have halved since the beginning of the decade. From a study of maize yields obtained since the war it is evident that not only are bad years less disastrous than they used to be but favourable seasons are more fully exploited. The upward trend in maize yields may be ascribed to the abandonment of inferior lands and to the marked growth of the practice of green-manuring. The Creamery proved of great service to farmers in possession of dairy herds and more crops are being grown for feeding purposes. The outbreak of foot-and-mouth disease caused great anxiety over the export of tobacco and wheat. Happily the restrictions, though irksome, have not prevented tobacco from entering the United Kingdom and South African markets.

Several of the young coffee estates at Abercorn are now in bearing. The preliminary indications of quality are unquestionably satisfactory, but the future of the industry will depend on the maintenance of prices and on the ability of the bushes to give a reasonable sustained yield under local conditions. Apart from the White Borer there is no serious pest at present. It is now evident that irrigation and heavy manuring will be essential on the light soils of the Abercorn coffee plantations. Some 340 cwt. of coffee was produced during the year.

Red locust swarms had bred in almost all districts by the end of January and hopper emergence was much earlier than in former years. Happily it was also less heavy. In late February disease caused by the fungus *empusa grylli* appeared for the first time and spread rapidly among hoppers and adults until July, when it had apparently accounted for all swarms of local origin. The disease did not appear sufficiently early to prevent some damage to maturing crops from young flying swarms.

In October a new influx of swarms from Angola and the Belgian Congo swept the territory and egg-laying commenced in November. Most fortunately the fungus disease appeared in December and considerably reduced the extent of the later layings. Moreover egg parasitism showed a marked increase and the fungus disease is now spreading amongst hopper bands.

Veterinary.

Two outbreaks of foot-and-mouth disease occurred during the year. The first was in the quarantine camp at Kazungula amongst cattle imported from Bechuanaland. The disease was kept confined to the quarantine area. The second outbreak occurred in

Namwala and spread to the Lusaka and Mazabuka areas. All stock in the infected areas have been inoculated by the intramucosal tongue method and there has been no further recurrence of outbreaks.

Veterinary reports from Barotseland indicate that that Province is now free of foot-and-mouth disease. A veterinary patrol on the Barotse-Angola border is maintained for the prevention of illicit movement of stock from across the border.

Cases of heartwater, a tick-borne disease, were very frequent during the latter part of the year, undoubtedly owing to the fact that continuous rains interfered with dipping at short intervals.

Losses from other bacterial and virus disease were insignificant. Direct and indirect losses from ecto-metazoal and endo-metazoal parasites were heavy.

Increased mining activities on the copper belt created a greatly increased demand for slaughter stock and ranchers had the opportunity to dispose of suitable animals. If the present demand continues the native herds will have to be more largely drawn on than has been the case lately. An increase in the ruling prices may induce the non-European stock owners to dispose of much larger amounts of cattle and so relieve the present overstocking in the Native Reserves.

The Livestock Co-operative Society had in the beginning of the year some difficulty in disposing of slaughter stock offered by its members. The stock was readily absorbed during the last quarter of the year at favourable prices.

The Creamery, established with Government support at Lusaka, has increased its output during the year and is well supported by the farmers. The foundation of the Creamery has created a great demand for dairy stock and a fair number of Friesland and Red Poll sires have been imported recently.

The supply of fresh milk available for disposal on the mines falls far short of the demand. Dairymen in those parts suffer great losses of dairy cows from trypanosomiasis. The losses have in some cases been successfully reduced by regular treatment of the stock with the trypanocidal preparation called Antimosan.

The territory remained closed for the importation of slaughter cattle from Southern Rhodesia and Bechuanaland.

Frozen and chilled mutton as well as live sheep for slaughter had to be imported from the south to meet the local demands. Some of the local farmers realized good prices for locally-reared animals.

The period under review has been a bad year for stock. An insufficient rainfall and destruction of vegetation by locusts reduced the carrying capacity of the pastures and losses from poverty were greatly increased.

Mining.

Producing Mines.

Roan Antelope Mine.—Production of copper during 1934 has been based on an adjustment of the supply to meet the demand and the entire output, amounting to 62,330 tons, of copper was shipped and sold to United Kingdom and Continental consumers.

Underground development work is progressing rapidly westwards on both sides of the ore-body. The ore so produced will be handled by the large vertical shafts which have been laid out 7,000 feet west of the present main shaft.

A second reverberatory furnace has been built and came into operation in October. Other additions to the smelter include a third converter and a second ingot-casting machine.

Additions to the power station include a 12,000 K.W. turbo alternator, a large turbo blower, and a 10,000 cubic foot steam turbo air compressor.

The crushing and treatment plant have operated to full capacity for a large part of the year. Additions to the crushing plant have been started which will increase the capacity of the concentrator.

Nkana Mine.—2,307,000 tons of ore averaging 3·79 per cent. copper were mined in 1934 from stopes above the 600 foot level. Stope development is in progress down to the 750 foot level. On the 900 foot level the main drive advanced towards the limits of the ore-body. Development has been started on the 1,050 foot, 1,250 foot, and 1,450 foot levels.

In the Mindola section of the mine four shafts are being sunk. The vertical shaft is 700 feet deep. No. 2 Incline shaft is down to 1,189 feet, and development from the 650 foot level station has cut the ore-body which shows a satisfactory copper content. An anode refining furnace and casting wheel have been added to the smelter. The electrolytic refinery was completed at the end of October and the cells started up in rotation. By the end of December 600 tons of electrolytic copper had been produced.

1,280,000 lb. of cobalt were exported as ferro-cobalt alloy.

Mufulira Mine.—Underground work was confined to sub-level and main drive development in preparation for stoping. The ore from this was sufficient to supply the plant requirements. The concentrates from the plant were smelted at Nkana and from these 13,097 tons of copper were obtained. The sinking of the main shaft was resumed in July. By the end of the year it had been sunk and timbered with steel setts to 670 feet, including stations at 460 and 660 feet.

An extensive construction programme started in the middle of the year. The crushing and concentrating plant will be increased from 1,500 tons to 6,000 tons per day capacity and a smelter will be erected.

Broken Hill Mine.—Mining has been directed almost entirely to supplying the plant with zinc ore, from which 19,540 tons of electrolytic zinc was produced. The vanadium export of 601 tons was from stocks on hand. 198 tons of lead were produced from residues and lead zinc sulphide ore mined during the year.

An extra roasting furnace has been added to the sulphuric acid plant, increased production being required to supply acid to the electrolytic refinery at Nkana.

Luiri Gold Areas.—Work was resumed on these areas in July, 1934. The workings at Matala were de-watered to the 200 foot level, and drives east and west of the reef started. The shaft will be sunk to 300 feet to open up the reef on this level. On the Dunrobin and other prospects the ore-bodies are being tested by diamond drill holes. The power plant has been reconditioned and a 500 cubic foot air compressor installed.

New Jessie Mine.—The reef on Klipspringer No. 2 has supplied the ore for the mill during the year. Several reefs have been struck on both the Klipspringer blocks of claims. A two-compartment vertical shaft was sunk to 150 feet on the Jessie D.B. claims from which crosscuts east and west are being driven to intersect the reefs. Old sand dumps are being re-treated in the cyanide plant.

Sasare West Mine.—This small gold mine tributed from the North Charterland Exploration Company (1910) Limited continues to give a good return on a small tonnage mined.

Sachenga Mica.—Two mining locations in this area have been pegged and a small amount of mica produced.

Development Mines.—Nchanga, Chambishi, Kansanshi, and Bwana Mkubwa have not been worked during the year.

Cassiterides.—Seven mining locations have been pegged on alluvial tin discovered in the Southern Province in the hills to the east of Choma.

Prospecting.

Rhokana Concessions (Rhodesia Congo Border Concession and Nkana Concession).—Prospecting was suspended for the first four months of 1934. During the remainder of the year, 685 square miles were prospected and geologically mapped. Several small gold and copper occurrences were found. Gold-bearing alluvials were sampled but the values were too low to be worked profitably.

Loangwa Concessions.—Extensive deposits of flake graphite about 45 miles north-west of Lundazi have been prospected by trenching. Gold occurrences which were located during the preliminary traversing are being intensively prospected with encouraging results. An option has been obtained on the Rhino Mine belonging to the North Rhodesia Company Limited, and the old shafts are being reconditioned and deepened to develop and sample the ore-body.

A total of 2,595 square miles were traversed and geologically mapped during the year Of these, 1,184 square miles were in the North Charterland area of the concession.

Rhodesia Minerals Concessions.—In these concessions 1,010 square miles were traversed and mapped. Five gold occurrences were discovered and trenched, three of which have yielded exceptionally high assays. Further work is necessary before their merits can be assessed.

General.

There has been a marked expansion in the copper mines. This was particularly the case in the later half of the year at Nkana, where production had to be increased to meet the requirements of the electrolytic refinery without reducing the output of blister copper.

The total output of copper in blister for 1934 was 33,090 tons higher than 1933, an increase of 30 per cent. No new mines have been opened.

Mineral Production.

In addition to the mineral production given below, 4,525 tons of copper were produced at Nkana for the manufacture of anodes for the refinery :—

			£	s.	d.
Gold	**2,112·61**	**ounces**	**14,511**	**8**	**0**
Silver	**187·13**	**„**	**16**	**0**	**0**
Copper (in blister)	**137,294·65**	**tons**	**4,147,086**	**0**	**0**
Copper (electrolytic)	**601·86**	**„**	**18,848**	**5**	**0**
Lead	**184·15**	**„**	**1,951**	**14**	**0**
Zinc	**19,540**	**„**	**265,697**	**12**	**0**
Vanadium	**7,129·04**	**lb.**	**4,633**	**18**	**0**
Manganese Ore	**2,041·35**	**tons**	**3,062**	**0**	**0**
Mica	**2,179**	**lb.**	**326**	**17**	**0**
Cobalt	**1,280,002**	**„**	**320,000**	**10**	**0**
			£4,776,134	**4**	**0**

The total value of the minerals produced in 1933 was £3,845,560.

VII.—COMMERCE.

The external trade of the territory improved considerably during the year 1934, and the steady progress which has been made since the upward tendency in import trade started in August, 1933, has now placed the trading conditions of the territory in a comparatively satisfactory position.

The value of merchandise imported during the year under review amounted to £2,957,117 as against £1,931,829 in 1933, an increase of £1,025,288 or 53·1 per cent. In addition, Government stores to the value of £42,204 and specie to the value of £4,416 were imported.

The total exports of merchandise were valued at £4,530,933 as compared with £3,715,396 in 1933, an increase of £815,537 or 21·9 per cent. In addition specie to the value of £9,462 was exported.

The large increase in imports during the year as compared with 1933 is to a large extent due to the importations in connexion with the copper-refining plant at Nkana and the development at the Mufulira copper mines. This is exemplified by the metals and machinery class, the value for which increased from £486,546 in 1933 to £1,186,523 in 1934. At the same time very satisfactory improvement is shown throughout all the remaining classes of imports. The increase shown in the value of exports reflects the increased production from the copper mines which maintained a steady output during the year.

The British Empire supplied 75·8 per cent. of the total imports of merchandise during 1934 and the percentages of Empire imports for the previous four years were as follows:—1930, 69·9 per cent., 1931. 73·8 per cent., 1932, 74·8 per cent. and 1933, 76·8 per cent. The United Kingdom supplied 39·5 per cent. and the United States of America was the largest supplier of the foreign countries with 11·7 per cent. of the import trade.

Minerals constituted 97·1 per cent. of the total value of domestic exports during the year, copper alone representing 84·2 per cent. The United Kingdom and Germany furnished the principal markets for our domestic exports, taking 44·3 per cent. and 24·4 per cent. respectively of the total value.

The trade balance is in favour of exports to the extent of £1,573,816 whereas in 1933 it was £1,783,567.

The following figures show the value of imports and merchandise and the value of exports—excluding specie—for the past ten years:—

Year.	*Imports.* £	*Exports.* £
1925	**1,284,025**	**432,997**
1926	**1,667,584**	**484,382**
1927	**1,957,138**	**755,525**
1928	**2,366,317**	**847,068**
1929	**3,602,417**	**899,736**
1930	**4,862,722**	**885,976**
1931	**5,140,548**	**1,178,515**
1932	**1,864,902**	**2,675,248**
1933	**1,931,829**	**3,715,396**
1934	**2,957,117**	**4,530,933**

Imports.

The following summary furnishes a comparison of the value of merchandise imported during the years 1931 to 1934 which originated from British and from foreign countries:—

Imports from:	*1931.* £	*1932.* £	*1933.* £	*1934.* £
Union of South Africa	**854,635**	**395,018**	**404,540**	**517,112**
Southern Rhodesia	**517,327**	**328,959**	**346,261**	**422,574**
United Kingdom and other British Possessions	**2,423,617**	**670,465**	**732,072**	**1,303,779**
Total British Empire	**3,795,579**	**1,394,442**	**1,482,873**	**2,243,465**
Foreign Countries	**1,344,969**	**470,460**	**448,956**	**713,652**
Total Merchandise	**£5,140,548**	**£1,864,902**	**£1,931,829**	**£2,957,117**

For the purpose of illustrating the routes of trade, the following table shows the value of merchandise received from the Union of South Africa and Southern Rhodesia and directly from overseas during the years 1931 to 1934 :—

Imports from :	*1931.*	*1932.*	*1933.*	*1934.*
	£	£	£	£
Union of South Africa	1,467,722	451,144	502,643	699,131
Southern Rhodesia	1,483,074	914,537	857,248	1,040,278
Imported from overseas	2,189,752	499,221	571,938	1,217,708
Total	£5,140,548	£1,864,902	£1,931,829	£2,957,117

The following table illustrates the comparative value of the principal classes of imports during the years 1930 to 1934 :—

	1930.	*1931.*	*1932.*	*1933.*	*1934.*
	£	£	£	£	£
Animals (living)	71,032	68,315	29,036	367	13,845
Foodstuffs, etc.	457,870	468,297	262,221	197,810	229,381
Ales, spirits, wines, etc. (potable)	174,504	145,686	84,485	74,475	88,051
Spirits (non-potable)	2,032	4,564	1,523	1,400	1,929
Tobacco	88,203	92,124	61,622	53,432	62,071
Textiles, apparel, yarns, fibres	609,741	579,192	319,835	308,423	350,346
Metals, metal manufactures, machinery and vehicles	2,206,841	2,504,339	391,531	486,546	1,186,523
Minerals, earthenware, glasses and cement	304,207	257,910	132,251	176,292	247,218
Oils, waxes, resins, paints and varnishes	286,951	244,379	142,811	126,318	137,548
Drugs, chemicals and fertilizers	87,920	91,623	52,828	64,175	85,588
Leather, rubber and manufactures thereof	117,628	133,080	57,032	58,854	78,362
Wood, cane, wicker and manufactures thereof	208,427	152,421	51,493	48,092	71,749
Books, paper, and stationery	62,415	71,294	36,260	34,805	38,526
Jewellery, time-pieces, fancy goods, etc.	63,546	59,804	29,778	25,419	28,310
Miscellaneous	121,405	267,520	212,196	275,421	337,670
Total Imports	£4,862,722	£5,140,548	£1,864,902	£1,931,829	£2,957,117

Exports.

The following table shows the value of the total exports during the years 1931 to 1934:—

	1931.	*1932.*	*1933.*	*1934.*
	£	£	£	£
Domestic exports	988,441	2,436,170	3,588,609	4,399,990
Imported goods re-exported ...	187,030	239,078	126,787	130,943
Articles exported through the post...	3,044	included in above.	included in above.	included in above.
Total merchandise exported ...	1,178,515	2,675,248	3,715,396	4,530,933
Specie	30,430	30,437	31,958	9,462
Grand total	£1,208,945	£2,705,685	£3,747,354	£4,540,395

The following summary furnishes a comparison of the value of exports to the Union, Southern Rhodesia, the United Kingdom and other British Possessions, and to foreign countries, distinguishing domestic exports and imported goods re-exported, during the years 1931 to 1934 (excluding specie for all years and articles exported through the post for the year 1931):—

Domestic Exports.	*1931.*	*1932.*	*1933.*	*1934.*
	£	£	£	£
Union of South Africa	57,527	29,300	60,325	69,580
Southern Rhodesia	30,182	31,544	18,766	20,210
United Kingdom and other British Possessions	323,884	778,024	1,179,719	1,947,989
Foreign countries	576,848	1,597,302	2,329,799	2,362,211
Total domestic exports	£988,441	£2,436,170	£3,588,609	£4,399,990
Imported Goods Re-Exported.	£	£	£	£
Union of South Africa	73,685	74,881	30,896	37,870
Southern Rhodesia	80,989	124,108	68,480	63,879
United Kingdom and other British Possessions	3,470	7,504	14,941	19,211
Foreign countries	28,886	32,585	12,470	9,983
Total imported goods re-exported	£187,030	£239,078	£126,787	£130,943

The following table illustrates the comparative value of the principal items of domestic exports for the years 1930 to 1934:—

	1930.	*1931.*	*1932.*	*1933.*	*1934.*
	£	£	£	£	£
Copper...	226,382	505,204	2,087,620	3,114,618	3,705,783
Cobalt alloy	—	—	—	39,008	191,755
Zinc	341,660	200,675	1,088	275,834	330,454
Vanadic oxide (fused) ...	—	73,760	164,752	19,638	15,676
Vanadium	24,710	17,871	32,266	—	21,548
Gold	26,511	35,390	41,277	6,833	6,351
Tobacco (unmanufactured) ...	57,163	33,346	39,209	35,196	41,669
Wood, manufactured and partly manufactured ...	17,053	29,929	23,414	36,829	42,215
Hides, skins and horns ...	13,486	19,807	8,725	8,547	9,967

VIII.—WAGES AND COST OF LIVING.

The position in regard to employment improved not inconsiderably during the year, and many more natives were able to find employment than in 1933, though there still remained very large numbers who did not succeed in doing so. The number of natives in employment at the end of 1934 amounted to about 49,700 as compared with 39,350 at the end of 1933, 42,000 at the end of 1932 and 79,000 at the end of 1931. Wages remained generally speaking on about the same level as in 1933. The principal increases in employment among natives were in mining, in which 14,245 were employed on an average as against 9,920 in 1933, agriculture, in which the respective figures were 8,981 and 5,624, building, the figures in which were 3,770 and 1,640, manufactures representing respectively 2,761 and 1,648, and domestic, which showed an increase from 9,335 in 1933 to 10,388 in 1934. Other forms of employment such as railways and Government, showed very much the same figures as those for 1933.

No recruiting of labour took place in the territory during the year, but there was a considerable independent exodus of natives in search of work to Southern Rhodesia and to the Lupa Goldfields in Tanganyika Territory. At the latter labour centre opportunities for employment increased until by the end of the year it was estimated that some 10,000 natives of Northern Rhodesia were working there.

At the end of 1934 there were 104,963 natives of Northern Rhodesia working in Southern Rhodesia, the number of those employed on mines being 42,876, an increase of 4,676 as compared with the same date in 1933.

Generally speaking native employees receive rations in addition to their pay, though in some cases they draw an allowance in lieu of food issues. The cost of the allowance varies from about 9s. per month in towns to from 4s. to 6s. in the country districts. Wages remained very low for labourers in agriculture and building, and there was no noticeable increase as compared with 1933. In mining they were at about the same level as in 1933, while in manufactures there was a slight decrease.

Wages ranged as follows during the year:—

Clerks: from £2 to £8 per month.
Artisans: from 30s. to £5 per month.
Labourers:

  Mines, surface: from 7s. to 28s. per month.
  Mines, underground: from 10s. to 40s. per month.
  Agriculture: from 4s. to 15s. per month.
  Manufactures: from 10s. to 12s. 6d. per month.
  Railways: from 10s. to 20s. per month.
  Roads: from 10s. to 12s. 6d. per month.

The rates of pay on mines include those paid on small workings which apparently were not included last year when the figures shown referred to the rates on the big copper mines only.

The cost of living for Europeans is governed mainly by the cost of transport. Transport charges, even in the case of places on the railway, add considerably to the price of commodities. When transport by motor or other means is necessary, as it is in the case of places off the line of rail, the average price is still further increased.

The average price of various commodities on the line of rail is as follows:—

	Average.	
	s.	*d.*
Bread, per lb. loaf	0	9
Local flour (1st grade) per lb.	0	4
Patna rice, per lb.	0	4
Mazawattee tea, per lb.	3	0
Sugar (white granulated) per lb.	0	4
Coffee (av., loose and tinned) per lb.	1	10
Butter, per lb.	2	0
Bacon, per lb.	2	0
Eggs (European farms), per doz.	2	0
Milk, per pint	0	4
Beef, per lb.	0	9½
Soap (Sunlight) per packet	1	6
Kerosene, tin of 4 gallons	12	0
Motor spirit (Shell) per gallon	3	3

The cost of clothing is from 30 to 50 per cent. higher than European prices.

IX.—EDUCATION AND WELFARE INSTITUTIONS.

For the education of European children there were, in 1934, controlled schools at Livingstone, Choma, Mazabuka, Lusaka, Broken Hill, Bwana Mkubwa, Ndola, Luanshya, and Nkana offering primary education up to Standard VII, with the additional subjects, Latin, French and Algebra in Standards VI and VII and Geometry in Standard VII. There were schools at Mulendema, Silver Rest, and Mufulira offering primary education up to Standard V. All these schools were under Government management, the tuition fees varying from 7s. 6d. to £1 17s. 6d. per quarter. The Convent School, Broken Hill, offering education up to the standard of the South African Matriculation Certificate Examination, and Mrs. Jeffrey's school at Fort Jameson were controlled schools but under private management. During the year a number of small uncontrolled schools also remained open.

Boarding accommodation was available for girls at the Beit School, Choma, and for boys at the Codrington School, Mazabuka, the boarding fees being £12 10s. per quarter in each case, and for boys and girls at Lusaka School, where the boarding fees were £9 per quarter. All three of these schools were under Government management. The Convent School, Broken Hill, under private management, also provided boarding accommodation.

Forty-nine teachers were employed in the controlled schools under Government management, the enrolment at the end of 1934 being 922. In addition, 111 children were attending controlled schools under private management and 46 were receiving education through the Southern Rhodesia correspondence classes.

Education for natives in Northern Rhodesia is still mainly provided through the agency of mission societies. These, however, receive financial support from Government and professional guidance from the inspecting officers of the Native Education Department.

Sixteen of the mission societies operating in the country maintain village elementary schools, boys' and girls' boarding schools, and teacher-training institutions recognized as eligible for Government grants. A total sum of £12,570 was directly distributed amongst them in recurrent grants for the nine months ending 30th September, 1934. This amount included a grant of £1,000 from the Beit Railway Trustees, £750 from the Carnegie Corporation, and £1,279 from the Barotse National Fund, the latter being distributed among three societies carrying on educational work in Barotseland.

Recurrent expenditure on Native Education during the year 1934, amounted to :—

	£
From Government Revenue	18,568
Beit Railway Trust	1,000
Carnegie Corporation	750
	£20,318

Recurrent expenditure on education under the Barotse Trust Fund for the nine months January-September, 1934, was approximately £3,148.

Since the year 1929 the sum of £13,800, generously granted by the Beit Railway Trustees, has been spent on building and equipping the Jeanes, Normal and Middle Elementary Schools at Mazabuka. In connexion with the establishment of the Native Trades School at Lusaka, buildings have been erected between 1932 and 1934 by means of appropriations from Loan funds. A further sum of £700 was granted in 1934 to mission societies for school buildings.

Owing to the growth of an inspectorate during the last few years, it is becoming possible to carry out more frequent inspections and to ensure that the moneys paid by Government are being utilized satisfactorily and that a steady improvement in the standard of education is being maintained.

One hundred and twenty African teachers passed the written part of the Government Certificate Examinations during the year. There are now 514 natives who have passed the written section of the examination and 423 who have been given certificates after inspection of their practical work.

Annual returns show that the Government and the mission societies employed on 31st December, 1934, some 1,700 teachers in 1,570 schools and sub-grade schools. The majority of these teachers must still be classed as catechists or evangelists in charge of so-called "bush" schools and have never had an adequate course of professional training.

Approximately 430 certificated teachers were in the service of missions at the end of the year and qualified for the Government grant-in-aid.

One hundred and fourteen European teachers and technical instructors were engaged in native education during the year.

Seventeen Europeans and twenty-eight African teachers and instructors, including the staff of the Barotse National School, comprised the staff of the Native Education Department.

Returns, which must be regarded as approximate, show that 15,549 boys and 6,774 girls attended recognized schools, while roughly 48,000 children attended sub-grade schools. Seven hundred and fifty pupils are at present attending Government elementary and middle schools including the Barotse National School which is maintained entirely by the Barotse National Trust Fund. It is estimated that there are about 250,000 children of school age in Northern Rhodesia.

The foregoing figures give some idea of the magnitude of the task of improving the standard of village elementary education to which Government and mission societies are devoting themselves. The Jeanes Training School, established by Government at Mazabuka, is an important and effective agent in the work. At present there are sixteen selected mission teachers being trained as Jeanes teachers. Their wives also receive training in hygiene, child welfare, and domestic subjects such as cooking, sewing, etc.

At Mbereshi (London Missionary Society), women teachers are being trained along Jeanes lines. A grant of £500 per year is given towards the cost of their training, half being borne by Government and half by the Carnegie Corporation. There are twenty girls' boarding schools subsidized by Government, with an enrolment of approximately 500 pupils. Domestic and vocational training is an important feature of the curricula of these girls' schools.

Boys receive training as carpenters, masons, and bricklayers at the Barotse National School, at Mbereshi (London Missionary Society), and to a lesser degree at several other mission stations. The Government Trade School for the training of carpenters, masons, and bricklayers at Lusaka was opened early in the year with thirty-six apprentices in training.

Government has also established an elementary and middle boarding school for boys at Mazabuka and elementary and middle co-educational schools at Ndola and Kasama. The Government Normal School at Mazabuka trains teachers for Government requirements and for the smaller missions which have no training schools of their own.

The proportion of recurrent expenditure (including grants from Trust funds) on native education to the total expenditure of the territory was at the rate of approximately 3·9 per cent.; the amount spent per head of native population on native education was approximately 4·8d., but it must be borne in mind that much the greater part of native education is carried out by the various missions, and it is impossible to compute with any accuracy what their educational services represent in terms of monetary expenditure. If it were possible to arrive at such a sum, the figure of 4·8d. given above would be very largely increased.

X.—COMMUNICATIONS AND TRANSPORT.

Railways.

The railway from Southern Rhodesia via the Victoria Falls to the Belgian Congo passes through North-Western Rhodesia and branch lines serving the Roan Antelope, Nkana, and Mufulira copper mines radiate from the main line at Ndola. Three through passenger trains, on which dining-cars and sleeping accommodation are available, run weekly in each direction over the main line. In addition, local mixed trains with second-class and native accommodation run daily in each direction between Livingstone and Ndola. No dining-cars are attached to these latter trains, but stops are made at a convenient place sufficiently long to allow of passengers taking a meal at the local hotel. In addition to these, a regular goods-train service is in operation for the conveyance of goods and mineral traffic, and loads of 1,300 tons in the northward direction are regularly obtained over long sections by these latter trains.

River Transport.

Transport to stations in the Barotse valley is by barge along the Zambesi river, but for rapid transport light aeroplanes are now being used to Mongu, where there is a Government aerodrome. There is no sleeping accommodation on the barges, which are made fast to the river bank for the night whilst travellers camp on shore.

The journey up the Zambesi from Livingstone to Mongu by barge takes from twelve days to three weeks: by air it is effected in three hours.

Roads.

The roads of the territory are of earth with the exception of the portion of the Great North road which runs from the Victoria Falls to Livingstone—a distance of some eight miles—which is bitumen-surfaced.

The arterial road system consists of three main routes, viz., the Great North road from Livingstone, which runs adjacent to the railway as far as Kapiri Mposhi (460 miles) where it turns north-east to Abercorn and Mpulungu on Lake Tanganyika, a total distance of 982 miles. The principal towns and Government stations on this route are Kalomo, Choma, Mazabuka, Lusaka, Broken Hill, Mpika, Kasama, and Abercorn. At Mpulungu the lake steamer connects with Kigoma on the Tanganyika Railway.

The Congo Border road branches off from the Great North road at Kapiri Mposhi and traverses the copper belt, Bwana Mkubwa, Ndola, Nkana, Nchanga, and Solwezi being the principal towns through which it passes. From Solwezi the road turns southwards and passing through Kasempa and Mumbwa joins the Great North road again 45 miles south of Broken Hill. The length of the Congo Border road is 650 miles.

The Great East road leaves the Great North road at Lusaka and proceeds to Fort Jameson and the Nyasaland border, where it connects up with the Nyasaland road system. The distance to Fort Jameson is 392 miles and this town is 12 miles from the Nyasaland border.

In addition to the main routes mentioned above, there are 4,950 miles of secondary roads which connect settled areas and Government stations throughout the greater part of the territory.

The roads generally are passable for traffic during nine months of the year, but during the rainy season, from December to April, traffic is restricted to 7,000 lb. gross loading.

The arterial roads have, with the exception of the Congo Border road, been bridged and culverted with permanent structures. On the Great East road the Luangwa Bridge, 850 ft. long, was completed in November, 1933, and opened to traffic. This bridge was presented by the Beit Trust.

On other roads, water-ways are crossed by bush timber bridges. A number of pontoons are provided at other major river crossings, for the use of which the Government charges a moderate fee.

Travellers can be accommodated at hotels and rest-houses at suitable points on all the arterial road systems.

Postal.

The volume of correspondence dealt with by the Northern Rhodesia Post Office, which during the years 1932 and 1933 had fallen to a considerably lower level than during the two preceding years, in 1934 recovered a good part of the ground lost. The total number of items—letters, postcards, newspapers, bookpackets, parcels and registered articles—received and despatched during the four years 1931 to 1934 were as follows :—

	1931.	*1932.*	*1933.*	*1934.*
Received	**5,463,166**	**3,978,530**	**3,356,106**	**4,680,828**
Despatched ...	**4,101,864**	**3,070,330**	**2,439,164**	**3,206,274**
Total ...	**9,565,030**	**7,048,860**	**5,795,270**	**7,887,102**

The value of stamps sold was £24,748, a larger amount than during any of the preceding four years. The value sold in 1933 was £21,936.

Postal orders and money orders were issued during 1933 to the value of £69,108 and during 1934 to the value of £91,198.

Postal orders and money orders were paid during 1933 to the value of £31,570 and during 1934 to £34,871.

" Cash-on-delivery " parcel facilities continued to be available and the number (8,566) and total value (£17,844) of the parcels showed an increase over the figures for 1933.

Telegraphs.

The main telegraph route runs beside the railway from the Victoria Falls Bridge to the Congo Border, with branches from Ndola to Luanshya, Ndola to Nkana and thence to Mufulira. Fort Jameson is connected with the Nyasaland system, Kasama and Abercorn with the Tanganyika system.

The volume of telegraph traffic dealt with during the year was greater than in 1933, the net telegraph revenue slightly greater.

	1933.	*1934.*
Paid telegrams	**49,265**	**51,595**
Official telegrams	**16,262**	**14,958**
Number of words	**859,204**	**1,264,637**
Net revenue	**£8,001**	**£8,329**

Telephones.

(*a*) *Exchanges.*—Automatic exchanges are in operation at Broken Hill, Livingstone, Luanshya, Lusaka, Masabuka, and Ndola. Private licensed automatic exchanges are established at the Roan Antelope Mine (Luanshya), the Mufulira Mine, Bwana Mkubwa, and Nkana.

Manual exchanges are in operation at Chisamba, Choma, Kalomo, and Mufulira.

Trunk call offices are open for public service at Bwana Mkubwa, Chingola, Kafue, Kapiri Mposhi, Monze, Nkana, and Pemba.

The licensed exchanges have facilities for trunk intercommunication.

(*b*) *Trunk Communication.*—During 1931 and 1932 the revenue from exchange rentals included payments by Government departments. Free service was granted from the 1st April, 1933. No charge is made for Government trunk calls.

	Revenue.			
	1934.	*1933.*	*1932.*	*1931.*
	£	£	£	£
Exchange rentals*	3,667	2,987	3,332	1,521
Call office and trunk fees ...	3,249	2,058	941	277
Miscellaneous	118	83	12	—
	£7,034	£5,128	£4,285	£1,798

* Excluding rentals due by Government Departments.

Wireless.

(*a*) *Aeronautical Services.*—Aeronautical wireless stations have been installed at Mpika and Broken Hill for radiocommunication services principally in connexion with the Imperial Airways Cape to Cairo Air Route. Both are equipped for point-to-point communication by means of short-wave emissions and for communication with aircraft in flight, on a wave-length of 900 metres.

(*b*) *Internal and International Services.*—In addition to aeronautical radiocommunication services, Broken Hill and Mpika maintain a public service, as Mpika is otherwise isolated. Short-wave stations have been installed at Abercorn, Livingstone, Mongu, and Fort Jameson and an experimental short-wave station at Lusaka.

International communication is maintained by Broken Hill with the territories of Tanganyika, Southern Rhodesia, and the Union of South Africa.

Revenue is included in telegraph revenue.

Civil Aviation.

Steady progress continues to be made in air communications. The main air routes are as follows:—

(1) *Livingstone to Mongu via the Zambesi River.*—On this route an aerodrome exists at Sesheke and landing grounds at Sioma and Senanga.

(2) *Livingstone to Ndola.*—This route is provided with a landing ground at Kalomo, aerodromes at Mazabuka, Kafue, Lusaka, a landing ground at Chisamba, and aerodromes at Broken Hill and Kapiri Mposhi.

Landing grounds will also shortly be available at Choma and Monze on that portion of the route between Kalomo and Mazabuka.

(3) *Livingstone to Fort Jameson.*—Landing grounds exist at Nyangwena (Hot Springs), Rufunsa, and Luangwa Beit Bridge. It is hoped early in 1935 to establish two emergency landing grounds between Luangwa Beit Bridge landing ground and Fort Jameson aerodrome and to construct a new aerodrome at Fort Jameson.

(4) *Imperial Airways Route.*—This route is equipped with a landing ground at Leopard's Hill midway between the Southern Rhodesia border and Broken Hill, aerodromes at Broken Hill, Kanona, Mtuga, Mpika, Shiwa Ngandu, Chinsali, and Isoka, and emergency landing grounds at Ndabala, Kalonji, and Mwinimpanza.

Aerodromes also exist at Abercorn, Mwinilunga, Kalabo, and Mumbwa. A new aerodrome is in course of construction at Mongu.

Landing grounds are also in course of construction at Balovale and Mankoya in the Barotse Province and at Kasama and at Chibwe between Kasama and Abercorn in the Northern Province.

All aerodromes are maintained in good condition and every endeavour is made as far as possible to maintain emergency landing grounds in a satisfactory condition for landing in case of need.

Airways.

The service of Imperial Airways has operated with regularity throughout the year.

In July a French air service began operations between Madagascar and Broken Hill, connecting with Imperial Airways for the carriage of mails only. This service is a weekly one.

An air mail service operates between Elisabethville and Broken Hill to coincide with the arrival of the Imperial Airways machines.

The Rhodesia and Nyasaland Airways Ltd., with headquarters at Salisbury, Southern Rhodesia, have operated a weekly service between Livingstone and Ndola since the beginning of May. The machines of this Company arrive at Livingstone on Saturdays from the south, proceed north on Sundays and return to Livingstone on the southbound journey each Wednesday.

One aeroplane is stationed at Livingstone and is available for hire. This machine is a W.A.C.O. biplane four-seater and is owned by Mr. N. D. MacGill, a local resident, who is also the pilot.

XI.—BANKING, CURRENCY, AND WEIGHTS AND MEASURES.

The Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial and Overseas) operate in the territory, with branches or agencies at the more important centres. The total deposits at these banks at 31st December, 1934, amounted to £873,070 as compared with £764,224 at the end of the previous year, an increase of over 14 per cent. The Post Office Savings Bank deposits amounted to £24,956 at 31st December, 1934, as compared with £15,890 at the end of the previous year.

There is no Land or Agricultural Bank in the territory.

The Bank Notes and Coinage Ordinance, 1931, Bank Notes and Coinage (Amendment) Ordinance, 1932, and Proclamation No. 3 of 1933 prescribe as legal tender at par throughout the territory (*a*) Bank of England notes, (*b*) bank-notes issued by the Standard Bank of South Africa Limited and Barclays Bank (Dominion Colonial and Overseas) at their offices at Salisbury, Southern Rhodesia, (*c*) the standard coinage in use in England, and (*d*) silver coinage of Southern Rhodesia for any amount not exceeding £2 sterling value. The enactment of the first Ordinance on 12th October, 1931, marked the departure of Northern Rhodesia from the gold standard of currency.

The English standards of weights and measures are in force.

XII.—PUBLIC WORKS.

No building work was carried out except at the new capital. The following are those buildings completed or under construction :—

Lusaka (New Capital).—Chief Secretary's house, three Executive Council houses, six blocks of flats, Government House, Central Offices, European Hospital, one double-storey house, and one bungalow.

The new capital water supply was nearly completed. This is to consist of a 250 ft. borehole, electrically driven pumps, chlorinating and softening plants and some seven miles of water mains.

Two and a half miles of oil-surfaced macadam road were laid and two miles of laterite roadway were laid in the new capital.

XIII.—JUSTICE, POLICE AND PRISONS.

Justice.

Justice is administered by the High Court of Northern Rhodesia and by the Magistrates' Courts subject to appeal to and review by the High Court.

During the year the High Court dealt with 144 civil matters as against 158 in the preceding year, and heard sixteen actions and four appeals. Twelve petitions in bankruptcy were presented. Sessions were held during the year at points along the line of railway in March and October. 113 criminal cases came before the Court exclusive of reviews of judgments in the lower Courts; these latter numbered 295 of which 231 convictions involving one or more persons were approved, forty-eight quashed, six altered, two referred back and subsequently approved, and in the remaining eight cases the accused were bound over.

Native Courts.

The Native Courts Ordinance was passed at the same time as the Native Authority Ordinance and was, like the latter Ordinance, applied to all the territory, with the exception of Barotseland, as from 1st April, 1930.

Native Courts are established and constituted by the Governor and are of two grades. In addition to administering native law and custom, in so far as such is not repugnant to natural justice and morality, they are given power under the Native Court Rules to try certain offences against the laws of the territory. Their power to inflict punishment is strictly limited and the Magistrates' Courts have jurisdiction to revise and review their judgments, and in certain instances to order the re-trial of a case. District Officers may sit as assessors in Native Courts.

The Governor has the power to suspend and dismiss members, and Provincial Commissioners have a similar power, subject to a report being made to the Governor on each occasion on which it is exercised.

The general conduct of the Native Courts continues to be satisfactory and slow but steady progress is being made. Complaints against decisions have been few and justice in accordance with native custom is administered.

Police.

Police prosecuted a total number of 9,513 cases during the year 1934. This shows an increase of 176 cases over the figures for 1933. There was an increase of 32 offences committed by Europeans under the Penal Code and a decrease of 59 offences under the local laws. Offences by natives under the Penal Code showed an increase of 39, and under the local laws an increase of 164.

The following is a comparison of the more serious cases with those tried during 1933:—

Crime.	*Europeans.*	*Natives.*	*Total.* *1934.*	 *1933.*
Affray	2	140	142	134
Arson	—	23	23	16
Assault, common	29	134	163	160

Crime.	*Europeans.*	*Natives.*	*Total.*	
			1934.	*1933.*
Assault, O.A.B.H.	13	111	124	124
Assault on police	1	9	10	18
Burglary	1	100	101	160
Embezzlement	—	7	7	1
Extortion	—	1	1	1
Forgery and uttering	6	129	135	36
Fraud and false pretences	32	38	70	39
Housebreaking and theft	—	207	207	197
Incest	—	—	—	1
Indecent assault	2	17	19	17
Indecent curiosity	—	7	7	3
Indecent exposure	—	—	—	2
Manslaughter	6	19	25	21
Murder	1	17	18	19
Attempted murder	—	5	5	1
Perjury	4	5	9	5
Rape and attempted rape	1	12	13	14
Receiving	—	67	67	79
Robbery	—	7	7	9
Theft, all forms	9	1,028	1,037	1,035
Unlawful wounding	—	12	12	9

The foregoing figures include only those cases taken to Court by the police and does not include cases heard by Magistrates at stations where the police are not posted.

Prisons.

There are six central prisons in the Territory, situated at Livingstone, Broken Hill, Kasama, Mongu, Fort Jameson, and Lusaka. A detention camp was instituted at Lusaka during the year and this was declared a central prison on the 19th September, 1934. In addition to the central prisons there are also twenty-eight local prisons situated at each of the other Government stations.

Committals to all prisons during the year were as follows:—

Livingstone	760
Broken Hill	714
Fort Jameson	173
Kasama	181
Mongu	926
Lusaka	290
All local prisons	9,228
Total	12,272

The daily average number of prisoners for all prisons was 1,399.

The daily average of sick was 50.

There were three executions during the year as against two in 1933.

There were twenty-five deaths from natural causes.

XIV.—LEGISLATION.

The only Session of the Legislative Council during the year under review was held in December, when nineteen Ordinances were passed, of which the more important measures were :—

The Native Tax (Amendment). (No. 3 of 1934.)
The Registration of United Kingdom Patents. (No. 17 of 1934.)
The Non-Native Personal Tax. (No. 19 of 1934.)
The Trades Licensing (Amendment). (No. 14 of 1934.)
The Customs and Excise Duties (Amendment). (No. 6 of 1934.)
The Municipal Corporations (Amendment). (No. 18 of 1934.)
The Legislative Council (Amendment). (No. 7 of 1934.)
The Bank Notes and Coinage (Amendment). (No. 12 of 1934.)
The Entertainments Tax (Amendment). (No. 13 of 1934.)

The necessity of providing more adequate protection to the interests of those engaged in mining operations in the territory is recognized in the enactment of the Registration of United Kingdom Patents Ordinance, which provides for the abolition of the registration of patents granted in Southern Rhodesia but re-enacts the principle that in Northern Rhodesia patent rights should depend upon a patent issued in the United Kingdom rather than on any original application in the territory itself.

The Native Tax (Amendment) Ordinance increases the power of District Officers to exempt natives from payment of tax, and also reduces the maximum term of imprisonment in default of sufficient distress. The Non-Native Personal Tax Ordinance imposes a tax of £1 on every non-native, exclusive of married females, who has reached the age of 21 years. Other revenue measures are the Trades Licensing (Amendment) Ordinance, which requires a licence to be taken out by an insurance agent where such person does not ordinarily reside in the territory, and the Entertainments Tax (Amendment) Ordinance, which continues the entertainments tax until 31st December, 1935.

Apart from effecting certain minor amendments to tariff items, the Customs and Excise Duties (Amendment) Ordinance repeals the power of the Governor to prohibit or restrict the importation of wheat grown elsewhere than in those parts of the British Empire in South Africa south of the Zambesi River, which power might have conflicted with the obligations of the territory arising out of the Congo Basin Treaties.

The Municipal Corporations (Amendment) Ordinance tightens up the provisions of the law in regard to the disqualification of certain persons for membership of municipal councils, extends the statutory period within which a valuation of assessable property should be made, and effects a minor amendment relating to the collection of licence fees for native-owned dogs.

The Legislative Council (Amendment) Ordinance provides that a person who has been convicted of a crime punishable with imprisonment for six months or longer shall be disqualified for election or, if the offence has been committed after election, for sitting or voting.

Although Southern Rhodesia silver coins have already been declared legal tender in the territory, and provision exists for the legalizing of tender of nickel and copper coins of that Colony, no power was contained in the law for the declaration as such of cupro-nickel and bronze coins. The necessary amendment is effected by the Bank Notes and Coinage (Amendment) Ordinance.

The more important subsidiary legislation is as follows :—

	Government Notice No.
The Maintenance Orders (Enforcement) Rules	39
The Foot-and-mouth Disease Regulations, 1934	59
The Mining Regulations, 1934...	71
The Cattle Diseases (Prohibited Imports) (Southern Rhodesia) Regulations, 1934.	86
The Cattle Diseases (Prohibited Imports) (Bechuanaland) Regulations, 1934.	88
The British Protected Persons Order, 1934	91
The Mining (Amendment) Regulations, 1934	97
The Public Health (Building) (Amendment) Regulations, 1934 ...	110
The Bwana Mkubwa Mine Township By-laws, 1934	116
The Carriage by Air (Colonies, Protectorates and Mandated Territories) Order, 1934.	125
Proclamation No. 5 of 1934 re-establishing the Provinces	136

XV.—PUBLIC FINANCE AND TAXATION.

The revenue and expenditure for the past seven years have been :—

		Expenditure.		*Total*
Year.	*Revenue.*	*Recurrent.*	*Extraordinary.*	*Expenditure.*
	£	£	£	£
1928–29	541,606	496,399	28,769	525,168
1929–30	672,289	532,367	22,160	554,527
1930–31	830,254	668,083	36,903	704,986
1931–32	856,376	793,798	26,258	820,056
1932	649,538	777,290	13,216	790,506
1933	718,283	773,985	4,894	778,879
1934	693,337	710,774	2,129	712,903

These figures exclude repayments to the Imperial Exchequer of grants-in-aid received in 1924-25 and 1925-26, and the loan of £240,000 received from the Colonial Development Fund and lent to the Rhokana Corporation in 1934.

Loan expenditure on capital development amounted to:—

£566,801 at 31st March, 1931.

£1,216,681 at 31st March, 1932.

£1,475,130 at 31st December, 1932.

£1,821,123 at 31st December, 1933.

£1,991,387 at 31st December, 1934.

The public debt consists of £1,250,000 5 per cent. inscribed stock 1950-70 issued in 1932 and £1,097,000 3½ per cent. inscribed stock 1955-65 issued in 1933.

The assets of the territory at the 31st December, 1934, consisted of:—

	£
Cash	376,787
Investments	44,070
Advances pending the receipt of grants from Beit Railway Trust	3,821
Sundry debtors	27,654
Stores	31,252
	£483,584

The liabilities were:—

	£
Post Office Savings Bank depositors	25,024
Native Reserves Fund	11,709
Sundry creditors	77,293
Northern Rhodesia 3½ per cent. Loan 1955-65 unexpended balance	254,587
	£368,613
Surplus assets	114,971
	£483,584

The main headings of taxation and yields during 1934 were as follows:—

	£
Licences	30,698
Native tax	108,142
Stamp duties	6,486
Customs and Excise duties	270,662
Income tax...	94,529
	£510,517

Licence fees are principally derived from trading, vehicles, arms, shooting of game, sale of liquor, and prospecting of minerals.

The annual native tax rates and the yields in 1934 are as follows :—

	£
Barotse Province (excluding Balovale district)—12s. 6d.	18,624
Barotse Province (Balovale district)—7s. 6d....	
Eastern Provinces—10s....	89,518
Western Provinces (excluding Mwinilinga district)—12s. 6d.	
Alien natives—12s. 6d.	
Mwinilinga district—7s. 6d.	
	£108,142

The tax is increased automatically by 1s. if not paid within nine months of the date on which it is due. All male natives are liable to pay one tax annually if they have reached eighteen years of age and are not indigent by reason of age, disease or such other cause as the District Officer may accept. Women and children are not liable and there is no tax on additional huts or on plural wives. It is not the practice to enforce payment on local natives who have been absent from the territory for periods exceeding twelve months if they are able to produce a tax receipt from an adjoining territory for that period and if they have not cultivated lands locally. The persons liable for tax are recorded in registers compiled under the supervision of District Officers. Collection is direct by officials of the Government and not by Native Authorities. Recovery for default is by distress through the Courts. The tax may be accepted in grain or stock or other produce at the discretion of the District Officer, but the practice is rare. The law does not impose labour in lieu of tax. Thirty per cent. of the Barotse tax is paid to a Trust Fund and applied directly to expenditure on native interests in the Barotse area.

Stamp duties, denoted by adhesive revenue stamps, are payable on all documents executed or received in the territory. The principal duties are :—

	£	*s.*	*d.*
Agreements	0	0	6
Bills of Exchange			
Not exceeding £50...	0	0	6
Exceeding £50 and not exceeding £100...	0	1	0
Every additional £100	0	1	0
Cheques	0	0	2

	£	s.	d.
Land Grants			
Not exceeding 10 acres	0	10	0
Rising to but not exceeding 3,000 acres ...	4	0	0
Every additional 1,000 acres	1	0	0
Equitable Mortgages			
Every £100...	0	2	0
Receipt when sum exceeds £1	0	0	2
Conveyances			
Every £50 of value of property sold or conveyed	0	10	0

For Customs purposes Northern Rhodesia is divided into two zones known as the Congo and Zambesi Basins. The Congo Basin can roughly be taken to be all the territory north of a line drawn on a map of Northern Rhodesia in a south-westerly direction from Fife in the north-east to the border where the territory joins the south-east corner of the Belgian Congo. The remainder of the territory to the west and the south constitutes the Zambesi Basin. The Zambesi Basin is by far the more important part of the territory industrially, and more than 90 per cent. of the total trade is transacted in this area.

The Zambesi Basin is subject to Customs Agreements with Southern Rhodesia, the Union of South Africa, and with the Bechuanaland Protectorate, Basutoland, and Swaziland. The Agreements provide in general for considerable rebates upon interchange of local manufactures, and for free interchange of raw products with limitation in regard to leaf tobacco.

The Congo Basin part of the territory is within the area defined by the Berlin Conference of 1885, and under the terms of the Convention revising the General Act of Berlin of 26th February, 1885, and the General Act and Declaration of Brussels of the 2nd July, 1890, signed at St. Germain-en-Laye on the 10th September, 1919, commercial equality within this area must be granted to nationals of the Signatory Powers and those of States Members of the League of Nations which adhere to the Convention. This part of the territory is therefore excluded from the terms of the Customs Agreements mentioned in the preceding paragraph.

Empire preference is given in the case of the following classes of goods, which are mainly liable to *ad valorem* rates of duty:—clothing, blankets and rugs, cotton piece-goods and all articles usually imported for household and native use, the duty on Empire products being in almost every instance 10 per cent. or 12 per cent. and the duty on foreign products varying from 15 to 25 per cent. : in the case of cotton and silk piece-goods, shirts, singlets, and rubber shoes, from foreign countries, the tariff provides for alternative specific rates if the duty should be greater. Agricultural, electrical, mining, and other industrial machinery, pipes and piping, metals and metal manufactures imported for industrial purposes, if of British manufacture, are free of duty, and if of foreign origin are subject to an *ad valorem* duty of 5 per cent., except foreign electrical machinery which is 15 per cent.

Specific rates of duty apply to practically all imported foodstuffs and to spirituous liquors, wines, beers, and tobacco : upon the latter items no preference is granted except under the terms of the Customs Agreements with the neighbouring territories in the south, but varying rates of preference are granted to foodstuffs of British origin.

The Customs Tariff contains two scales of duty :—

Scale " *A* "—in respect of goods not entitled to preferential treatment ;

Scale " *B* "—in respect of goods from the United Kingdom and British Possessions, and all goods imported into the Congo Basin area.

Ports of Entry.

The following are the ports of entry into and exit from Northern Rhodesia :—Ndola, Livingstone, Fort Jameson, Broken Hill (free warehousing ports), Abercorn, Solwezi, Fort Rosebery, Chingola, Kawambwa, Mpika, Balovale, Mwinilunga, Isoka, Chiengi, Feira, Kazungula, Lundazi, and Mufulira.

Customs Agreements.

The terms of the agreement with the Union of South Africa provide for the transfer of the Union rates or the Northern Rhodesia rates if higher when imported goods are removed from the Union to Northern Rhodesia and for the transfer of Union rates when imported goods are removed from Northern Rhodesia to the Union. In respect of local manufactures removed between the two territories, Government payments of 12 per cent. of the export value of foodstuffs and 6 per cent. of the export value of all other local manufactures are transferred except in the case of cigarettes, tobacco, beer, wines and spirits, which are directly taxed at tariff rates subject to the following rebates : cigarettes and tobacco manufactures, 75 per cent. ; beer and wines, 50 per cent. ; and spirits, 25 per cent. Free interchange of raw products is provided for, but Northern Rhodesia leaf tobacco exported to the Union is limited to 400,000 lb. per annum free of duty, and similarly Union leaf tobacco exported to Northern Rhodesia is limited to 50,000 lb.

The terms of the agreement with Southern Rhodesia provide for a uniform tariff so far as possible and the transfer of the higher duty imposed in either territory when imported goods are removed from one territory to the other. In respect of local manufactures removed between the two territories, Government payments of 12 per cent. of the export value of foodstuffs and 6 per cent. of the export value of all other local manufactures are transferred, except in the case of beer, wines, and spirits, which are directly taxed at tariff rates subject to the following rebates:—beer and wines, 50 per cent.; spirits, 25 per cent. Cigarettes and tobacco of Southern Rhodesia or Northern Rhodesia manufacture are not liable to import rates upon removal from one territory to the other but are subject to a transferred payment of the appropriate excise duties.

On Union manufactures removed between Southern and Northern Rhodesia the payment previously received from the Union Government is transferred between the Southern and Northern Rhodesia Governments.

Income tax on individuals is charged as follows:—

	s.	*d.*
For every £1 of the first £100 of chargeable income	**0**	**6**
,, ,, £1 ,, next £100 ,, ,, ...	**1**	**0**
,, ,, £1 ,, ,, £100 ,, ,, ...	**1**	**6**
,, ,, £1 ,, ,, £100 ,, ,, ...	**2**	**0**
,, ,, £1 ,, ,, £100 ,, ,, ...	**2**	**6**
,, ,, £1 ,, ,, £500 ,, ,, ...	**3**	**0**
,, ,, £1 ,, ,, £500 ,, ,, ...	**3**	**6**
And for every £1 in excess of £1,500	**4**	**0**

The following deductions are allowed:—personal £300; for a wife £420; for children £100 each; for a dependant the amount expended, not exceeding £100; for life insurance, premiums not exceeding one-sixth of the income remaining after deducting the personal deduction.

An indivdual who is a non-resident and not a British subject is eligible for the personal deduction of £300 only. Company income tax is at the rate of four shillings in the pound. Relief is allowed in respect of United Kingdom and Empire income-tax.

APPENDIX.

PUBLICATIONS OF GENERAL INTEREST RELATING TO NORTHERN RHODESIA.

Bertrand, A.—"The Kingdom of the Barotse, Upper Zambesi".

British South Africa Company's Reports on the Administration of Rhodesia.

Bradley, K. G.—"Africa Notwithstanding"
"Hawks Alighting" } Published by Lovat Dickson & Co.

Burton, Sir Richard.—"The Lands of the Cazembe". Translation of Dr. Lacerda's diaries and information about Portuguese expeditions. London. Published by the Royal Geographical Society, 1873.

Coillard, F.—"On the Threshold of Central Africa". Hodder & Stoughton, London. Contains an account of the social and political status of the Natives.

Coxhead, J. C. C.—"Native Tribes of North-Eastern Rhodesia". Published by the Royal Anthropological Institute.

Decle, L.—"Three Years in Savage Africa". Methuen & Co., London. Describes Bulawayo in 1892, and also the customs of the native races.

Elliott, Scot.—"A Naturalist in Mid-Africa". A. D. Innes & Co., London. 1896.

"Eastern Africa To-day". A guide published by *East Africa*, 91, Great Titchfield Street, London, W.1.

Evans, I. L.—"The British in Tropical Africa". Cambridge University Press, 1929.

Foa, E.—"After Big Game, Central Africa". Adam and Charles Black, London, 1899.

Gibbons, A. St. H.—"Exploration and Hunting in Central Africa". Methuen & Co., London. Contains a full, careful description of the Upper Zambesi, and an account of the subjects of Chief Lewanika.

Gill, Sir D.—"Geodetic Survey of South Africa". *Cape Times*, Cape Town.

Gouldsbury—Articles in S. A. Soey—Awemba Customs.

Gouldsbury & Sheane.—"The Great Plateau of Northern Rhodesia". Arnold, London.

Grogan, E. S. and Sharp, A. H.—"From the Cape to Cairo". Hurst & Blackett, London, 1900.

Harding, C.—"In Remotest Barotseland". Hurst & Blackett, London.

Hertslet, Sir B.—"The Map of Africa by Treaty". 2nd Edition. London, 1897.

Hore, E. C.—"Tanganyika, Eleven Years in Central Africa". 2nd Edition. London, 1892.

Johnston, Sir H. H.—"Livingstone and the Exploration of Central Africa." Phillip & Son, London.

Johnston, Sir H. H.—"British Central Africa". Methuen & Co., London. 1897.

Johnston, Sir H. H.—"A History of the Colonisation of Africa by Alien Races". Cambridge University Press. 1899.

Johnston, J.—"Reality versus Romance". Hodder & Stoughton, London. Deals with the Barotse Country and also with the Zimbabwe.

Jones, Dr. T Jesse—"Education in East Africa". Edinburgh House Press, 2, Eaton Gate, London, S.W.1. 1925.

Keltie, J. Scott—"The Partition of Africa". 2nd Edition. London. 1895.

Livingstone, D. and C.—"Expedition to the Zambesi and its discovery of Lakes Shirwa and Nyasa."

Livingstone's Last Journals.

Lyell, D. D.—"Hunting Trips in Northern Rhodesia". Cox, London.

Mackintosh—"Coillard of the Zambesi".

Maloney, J. A.—"With Captain Stairs to Katanga". Sampson, Low, Marston & Co., London. 1893.

Marshall-Hole, H.—"The Making of Rhodesia".

Melland, F. H.—"In Witch-bound Africa". 1923, and many others of an ethnological and local nature published by the same author.

Moffat, Thomson J. & Fairweather, W. G.—"Tribal Areas in Northern Rhodesia." Government Printer. Northern Rhodesia. 3/-.

Moore, J. E. S.—"To the Mountains of the Moon". Hurst & Blackett, London. 1901.

Mansfield, C.—"Via Rhodesia". S. Paul, London.
Mowbray, J. M.—" In South Central Africa". Constable. 1912.
Northern Rhodesia Annual Reports. Published by H. M. Stationery Office.
Selous, F. C.—"Travel and Adventure in South-East Africa". Rowland Ward, London.
Selous, F. C.—" A Hunter's Wanderings in Africa". Bentley & Son, London. Includes experiences in Bechuanaland, Mashonaland and Rhodesia from 1871 to 1880.
Smith and Dale—" The Ila Speaking Peoples of Northern Rhodesia". MacMillan & Co.
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South and East Africa Year Book and Guide. Published annually for the Union-Castle Company. Sampson, Low, Marston & Co., Ltd., London.
Thomson, H. C.—" Rhodesia and its Government". Smith, Elder, London.
Thomson, Rev. J. B.—"J. Thomson, African Explorer". Sampson, Low, Marston & Co., London. 1896.
White, A. S.—"The Development of Africa". 2nd Edition. G. Phillip & Son, London. 1892.
Numerous articles in the Journals of the Royal Geographical Society, the Royal Colonial Institute, the Royal Anthropological Institute, and the African Society.
A Bibliography of " Publications having reference to the East African Territories" has been compiled by the Royal Colonial Institute Library.

Title.	*Price.*	*Agents.*
Annual Report, Health Department, 1931.	Not fixed.	Crown Agents, London.
Annual Bulletin, Department of Agriculture, 1933.	2s. 6d.	Government Printer, Livingstone.
Annual Bulletin, Department of Animal Health, 1932.	2s. 6d.	Do. do.
Notes on the General Geology of Northern Rhodesia (J. A. Bancroft and R. A. Pelletier).	1s. 6d.	Secretary for Mines, Ndola, Northern Rhodesia.
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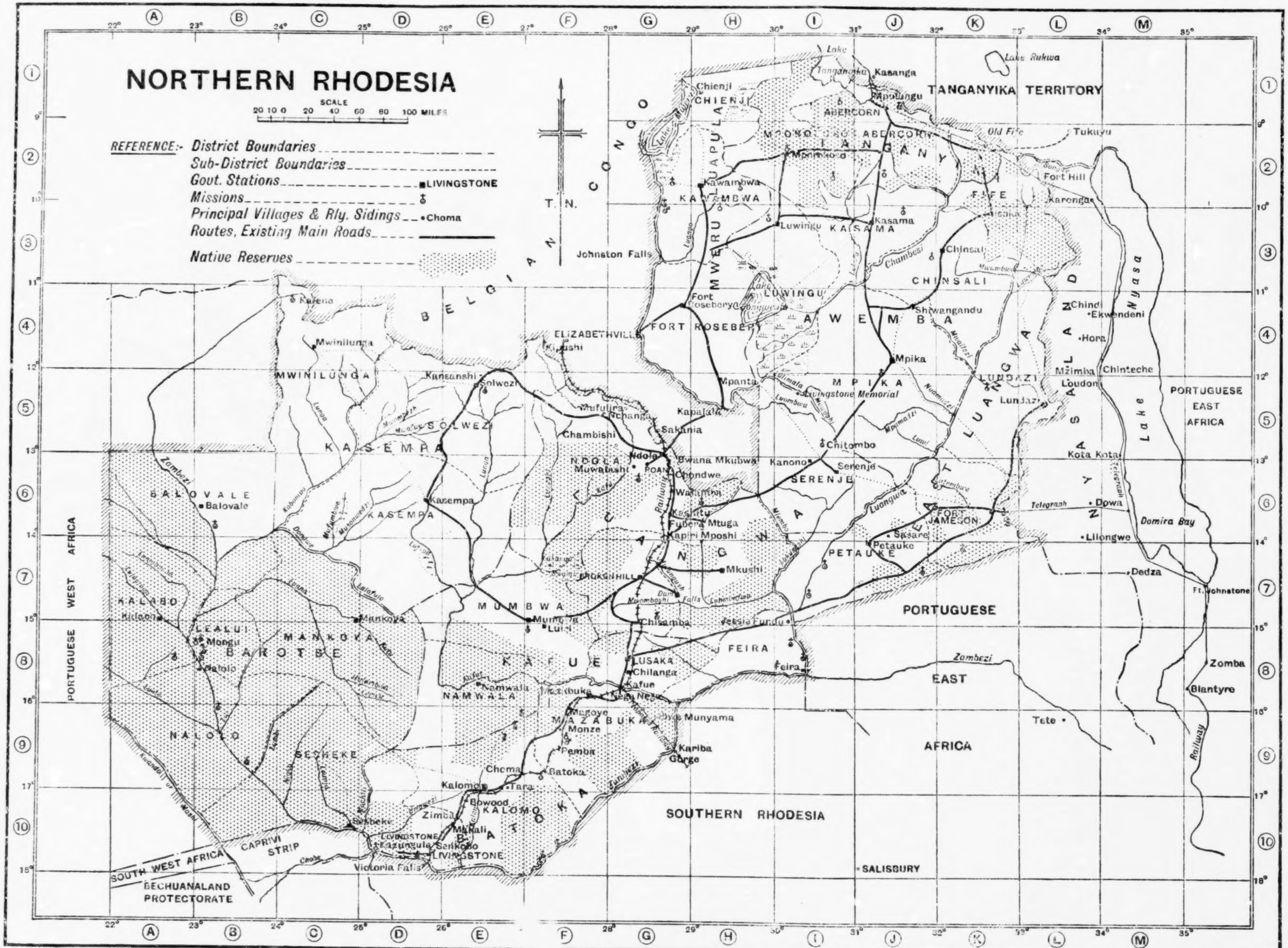

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East African Agricultural Research Station, Amani. Sixth Annual Report, 1933–34. [Colonial No. 100.] 1*s.* (1*s.* 1*d.*).

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Financial Situation. Report of Commission, June, 1931. [Cmd. 3938.] 1*s.* (1*s.* 2*d.*).

THE LEEWARD ISLANDS AND ST. LUCIA.

Report by Sir Sydney Armitage Smith, K.B.E., C.B., on a Financial Mission, October, 1931. [Cmd. 3996.] 2*s.* (2*s.* 2*d.*).

PALESTINE.

Report on Immigration, Land Settlement and Development, by Sir John Hope Simpson, C.I.E., 1930. [Cmd. 3686.] 3*s.* (3*s.* 3*d.*).

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1935

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I.—GEOGRAPHY, CLIMATE, AND HISTORY.

Geography.

The territory known as the Protectorate of Northern Rhodesia lies between longitudes 22° E. and 33° 33′ E. and between latitudes 8° 15′ S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South West Africa, comprising in all an area that is computed to be about 290,320 square miles. The River Zambesi forms the greater part of the southern boundary; its two main northern tributaries are the rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

History.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown territory.

The Portuguese Governor of Sena, Dr. Lacerda, encouraged by the report of the half-breed Fereira who returned from Kasembe's capital, close to the eastern shores of Lake Mweru in June, 1798, decided to set out on the expedition he had planned the year before, and on 3rd July, 1798, left Tete for the north. He was accompanied by Father Francisco, Jose and Pinto, twelve officers and fifty men-at-arms, but failed to reach his goal, and died within a few miles of Kasembe's capital. Father Pinto led the remnants of the expedition back to Sena, and it is from Dr. Lacerda's diaries, which Father Pinto with great difficulty saved, that the first authentic history of what is now North-Eastern Rhodesia was taken. Dr. Lacerda was followed in the early 19th century by two Portuguese traders, Baptista and Jose, who brought back stories of the great interior kingdom of the Balunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the 16th to the 19th century. Very few historical facts are known about it, but the name of Mwatiamvo, the dynastic title of the paramount chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and in 1855 discovered the Victoria Falls, that the civilized world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls, were Serpa Pinto, Cameron, Selous and Arnot.

From the very early days when the hordes of migratory Bantu swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasions from stronger tribes on its borders, so much so, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambesi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time the population of the territory has been classified into seventy-three different tribes, the most important of which are the Wemba, Ngoni, Chewa, and Wisa in the north-eastern districts, the Rozi, Tonga, Luvale, Lenje, and Ila in the north-western districts, and the Senga, Lala, and Lunda, members of which are resident in both the eastern and western areas. There are some thirty different dialects in use, but many of them vary so slightly that a knowledge of six of the principal languages will enable a person to converse with every native in the country. Chinyanja is in use as the official language of the police and is probably the language most generally spoken by Europeans; it is in reality a Nyasaland language—the word means " Language of the Lake "—but it is also spoken to some extent round Fort Jameson. In many instances the tribes overlap and encroach upon each other, and it is not uncommon to find a group of villages of one tribe entirely surrounded by villages of another tribe. Many of the tribes on the borders extend into neighbouring territories; in some instances the paramount chief resides in a foreign country and only a small proportion of the tribe lives in Northern Rhodesia.

The chief invaders of the early part of the 19th century were the Arabs from the north, the Angoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the territory, and the Makalolo, an offshoot of the Basuto family, who in the beginning of the 19th century fought their way from the south through Bechuanaland and across the Zambesi under the noted Chief Sebitoani; they conquered the Batoka, the Masubia, and the Marozi and founded a kingdom which was distinguished by a comparatively high degree of social organization.

The duration of the Makololo kingdom was short, lasting between twenty and thirty years. Soon after the death of Sebitoani, the Marozi rebelled and massacred the Makololo to a man, keeping their women. As a result of this the influence of their occupation is still to be seen in the Sikololo language, which is largely spoken amongst the tribes near the Zambesi. The Marozi under Lewanika enlarged their kingdom by conquering several surrounding tribes, such as the Mankoya, the Malovale, and the Batoka. Beyond these limits their authority was both nebulous and ephemeral.

In the year 1891 Lewanika was informed that the protection of Her Majesty's Government had been extended to his country as he had requested that it should be, and on 17th October, 1900, the Barotse Concession was signed by him and his chiefs and representatives of the Chartered Company. The concession was confirmed in due course by the Secretary of State for the Colonies and under its terms the Company acquired certain trading and mineral rights over the whole of Lewanika's dominion, while the paramount chief was to receive, among other advantages, an annual subsidy of £850.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lakes Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in 1893 the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave-raiders were occasionally encountered on the north-east boundary and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavery. This social serfdom was brought to an end by the edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Before 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland-North Western Rhodesia Order in Council placed the Company's administration of the western portion of the country on a firm basis; it was closely followed by the North-Eastern Rhodesia Order in Council of 1900 which had a similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924. In that year the administration of the territory was assumed by the Crown in terms of a settlement arrived at between the Crown and the Company, and the first Governor was appointed on 1st April, 1924.

Since that date rich copper deposits have been discovered in the north-west of the territory and have been developed into an extensive industrial area embodying three large townships with a population including several thousands of Europeans.

Climate.

There are considerable differences between various parts of the country. The Zambesi, the Luangwa and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November before the rains break, when the mean maximum is 97° F. at Zambesi valley stations and 85° F. at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90° F. with a mean minimum of 64° F., while the corresponding figures for the four months of the cold season (May to August) are 79° F. and 46° F.

The following table gives representative temperatures for the territory experienced during 1935 :—

	Highest mean. Max. °F.	*Month.*	*Lowest mean. Min. °F.*	*Month.*	*Absolute. Max. °F.*	*Month.*	*Absolute. Min. °F.*	*Month.*
Livingstone, 3,160 ft. ...	95·9	Oct.	43·9	June	103·0	Nov.	34·2	June
Broken Hill, 3,920 ft. ...	88·9	Oct.	47·3	July	93·7	Nov.	38·5	June
Isoka, 4,210 ft.	85·8	Oct.	54·4	July	92·0	Sept.	50·0	May. June. July.
Balovale, 3,400 ft. ...	103·1	Oct.	44·1	June	107·0	Oct.	38·0	June

Highest temperature ... ... 117° F. Kanchindu.
Lowest temperature ... ... 21° F. Sesheke.

The rainy season usually commences in November and lasts until April. Slight showers occur to the north-east of the territory in August and to the north-east and north-west in September. In October the rains begin to spread over the whole territory, reaching a maximum in December.

The intensity of rainfall decreases in January, this falling-off appearing to be the nearest approach to a break in the rains, which is characteristic of the two seasonal areas of the central tropical zone.

In February the rains re-establish themselves over the whole of the central area of the territory, following much the same contour alignment as in December. In March the zone of heavy rainfall shifts well to the north and east. In April the rains have definitely moved north and in May have practically ceased.

The greatest rainfall recorded in 24 hours was 5·68 inches at Florida Farm in the Lusaka district, on the 10th of December 1935.

II.—GOVERNMENT.

Central Administration.

The office of Governor was created by an Order of His Majesty in Council dated 20th February 1924, and the first Governor assumed his duties on 1st April 1924.

The Governor is advised by an Executive Council which consists of five members—the Chief Secretary, the Attorney-General, the Treasurer, the Senior Provincial Commissioner, and the Director of Medical Services. Provision is also made for the inclusion of extraordinary members on special occasions.

The Order in Council provided that a Legislative Council should be constituted in accordance with the terms of the Northern Rhodesia (Legislative Council) Order in Council, dated 20th February 1924, to consist of the Governor as President, the members of the Executive Council *ex officio*, nominated official members not exceeding four in number, and five elected unofficial members.

In 1929 the number of elected unofficial members was increased to seven consequent upon the very considerable increase in the European population.

The seat of government was transferred from Livingstone to Lusaka during the year, the official inauguration of the new capital being arranged to coincide with the ceremonial celebration of His late Majesty's birthday on the 3rd of June.

Provincial Administration.

For administrative purposes the territory was formerly divided into nine provinces, each of which was under a Provincial Commissioner responsible for his province to the Governor. The provinces were grouped together under five Provincial Commissioners in 1933 and as from 1st January 1935, the number of provinces was reduced to five. The provinces are divided into districts under the charge of District Commissioners responsible to the Provincial Commissioners.

Native Administration.

In 1929 the Native Authority Ordinance was passed and subsequently applied to all the territory with the exception of Barotseland, which was exempted from the application of the Ordinance on account of the rights which the paramount chief and his *khotla* (judicial and deliberative assembly) preserved under the concessions granted to the Chartered Company.

The Ordinance empowers the Governor to appoint in specified areas Native Authorities, consisting of one or more chiefs or other natives, to be responsible for the performance of the obligations imposed upon them by the Ordinance and for the maintenance of order and good government in the area. The Governor also has the power to suspend or dismiss members of such Native Authorities. The duties of the Authorities are clearly defined in the Ordinance, which confers upon them power to make rules for certain objects. It is the duty of all natives to assist such Native Authorities in the work of administration.

The system is developing and the work of the Authorities is improving as the chiefs gain experience.

Native treasuries have not yet been established, but steps are being taken to educate the Native Authorities in the matter of finance and the administration of public funds.

III.—POPULATION.

The first census of the territory took place on 7th May 1911, prior to the amalgamation in the same year of North-Eastern and North-Western Rhodesia under the title Northern Rhodesia; the second was held on 3rd May 1921, and the third on 5th May 1931.

The following table shows the increase of population since 1911 (the figures for European population for 1931 are census figures, whilst all those for African population are taken from the annual Native Affairs Reports) :—

Year.	*Europeans.*	*Increase. per cent.*	*Africans.*	*Increase. per cent.*	*Proportion of Africans to one European.*
1911	1,497	—	821,063	—	548·47
1921	3,634	143	979,704	19	269·59
1931	13,846	381	1,372,235	40	99
1932	10,553	*23·7	1,382,705	·76	131
1933	11,278	6·87	1,371,213	*·83	121·58
1934	11,464	1·65	1,366,425	*·33	119·21

* Decrease.

The increase in the number of Europeans between 1921 and 1931 was due to the influx which took place during the development of the copper mines in Ndola district between 1927 and 1931. The mines had nearly completed construction towards the end of the year 1931 and a considerable number of Europeans left the territory in consequence.

The economic depression which set in towards the end of 1931 has been the cause of a further drop of 23·7 per cent. during 1932. In 1933 and 1934 an increase was brought about by the renewed activity at the copper mines. The figures given have been collected from the annual reports of District Commissioners throughout the territory and may be regarded as being reasonably accurate. The European population is now in the region of 9,900.

The numbers of Asiatics and non-native coloured persons in the territory at the 1931 census amounted to 176 and 425 respectively.

The African population in 1934 was estimated to be 1,366,425 which showed a decrease of 4,788 or ·34 per cent. on the previous year, and its average density through the territory is 4·7 to the square mile. The average birth-rate calculated on statistics taken at 411 villages with a population of 42,768 during 1934 was 52·9 per thousand, and the percentage of infantile mortality was 29·11 (infants under the age of one year 17·3 per cent., under two years 11·8 per cent.).

No count of the population was made in 1935 but the figures are believed to be about the same as in 1934.

The European population at 9,900 shows a decrease of 1,564 below 1934, or 7·33 per cent. The death-rate is 7·15 per 1,000, as compared with 9·42 during 1934 and 9·13 during 1933.

Vital Statistics.

	1930.	*1931.*	*1932.*	*1933.*	*1934.*	*1935.*
Number of deaths	163	210	117	103	108	100
Death rate per 1,000 ...	13·58	15·16	11·08	9·13	9·42	7·15
Deaths of infants under 1 year of age	28	28	24	13	15	15
Death rate per 1,000 live births	102·56	84·08	72·29	40·88	47·61	53·00

Number of Births : 283.

The crude birth-rate was 20·21 per 1,000 as compared with 27·48 in 1934 and 33·78 in 1933. The above figure for the European population is little more than a guess, since no record of emigration is kept though immigrants are recorded. Accordingly all rates calculated per 1,000 of the population are to be read with reserve.

Immigration.

Nine thousand, three hundred and ninety-six Europeans entered Northern Rhodesia during 1935. This number includes immigrants, returning residents, visitors and a small percentage of persons in transit. The immigrants numbered 1,352, of whom 1,227 were British subjects, and 125 aliens, which total includes 19 citizens of the United States of America, 22 Germans and 22 Italians. The following comparative table of immigrants shows the progress of the territory :—

1926.	*1927.*	*1928.*	*1929.*	*1930.*	*1931.*	*1932.*	*1933.*	*1934.*	*1935.*
756	1,038	1,066	1,861	3,651	1,702	615	801	1,726	1,352

Thirty-four persons were removed from the territory under the Immigration Ordinance. Of this number twenty were indigent, seven illiterate, three indigent and illiterate, three criminal and one immoral.

Accurate figures of emigration are not available.

Twenty-five destitute persons were repatriated at Government expense to neighbouring territories and overseas—a decrease on the 1934 total of 27, on the 1933 total of 173, and on the 1932 total of 409.

Asiatic Population.

The Asiatic population as at 31st December 1935, was approximately 227, as compared with 188 in 1934. All these Asiatics are British Indians.

IV.—HEALTH.

The medical facilities available to the European and native populations in the past were maintained throughout the year, and were as follows :—

European Hospitals.	*Native Hospitals.*
Livingstone.	Livingstone.
Lusaka.	Choma.
Broken Hill.	Mazabuka.
Ndola.	Lusaka.
Kasama.	Broken Hill.
Fort Jameson.	Ndola.
Mongu.	Kasama.
	Fort Rosebery.
	Fort Jameson.
	Mongu.
	Balovale.

In addition to the above-mentioned hospitals, Government maintained 23 dispensaries on Government stations and 15 in rural districts in charge of native orderlies. The rural dispensaries were visited from time to time by the medical officer of the district.

Owing to the vastness of the territory and the lack of means of communication, the treatment of the African population presents considerable difficulty. It is hoped in the near future to begin to establish a chain of rural dispensaries.

A new European hospital was opened at Lusaka in July 1935.

A great deal of valuable medical work has been done by the various missions, who control many hospitals and dispensaries under the supervision of doctors, trained nurses and missionaries with some medical training; these services to the natives are subsidized by Government to the extent of £2,950 per annum.

The large mines in the copper belt maintain their own medical staff in addition to well-equipped hospitals in which they care for their employees. All destitute Europeans and unemployed natives are treated at Government expense, but those in the copper belt are, when possible, transported to the Government hospital at Ndola.

The railway maintains either full-time or part-time medical officers at Livingstone, Lusaka, Broken Hill and Ndola, who give medical treatment to railway employees as required.

School Inspections.—Medical and dental inspections of all European schools are carried out by Government medical and dental officers, and parents are advised as regards the health of their children.

Subsidies are granted to dental surgeons at Livingstone, Lusaka, Broken Hill, Ndola and Fort Jameson for dental inspection work. The response of parents in seeking dental treatment is disappointing.

No appointments to the posts vacated in 1933 were made during the year, with the result that only skeleton health services were maintained; all medical officers attempt to perform the duties of medical officers of health, in addition to their clinical duties.

The general health of the country throughout the year was good, and no epidemic disease of great importance was recorded.

Malaria and Blackwater Fever.—Considerable anti-malaria measures continue to be undertaken by the chief mining companies with excellent results. The following table of deaths indicates a general improvement of conditions.

Deaths.	*1931.*	*1932.*	*1933.*	*1934.*	*1935.*
Malaria	22	16	3	10	8
Blackwater	19	22	20	11	13

Trypanosomiasis.—Forty-nine cases of this disease were reported during the year. All these cases were natives, and only 14 deaths occurred. Late in the year sleeping sickness was found to be endemic in the Mumbwa area which was not formerly recognized as a centre of this disease. A survey of the area was made and 29 cases in all have been discovered. Appropriate directions were given as to closing of paths and the siting of native villages.

Typhoid.—Eleven European and 38 native cases were reported during the year, with one European and six native deaths.

Variola.—No cases of variola major were reported in 1935, but 32 cases of variola minor.

Measles.—Several epidemics of measles occurred in native areas with considerable mortality among infants and a good deal of residual blindness.

Influenza.—There were a number of epidemic waves of influenza in native areas in 1935 with appreciable mortality from pneumonia.

Rabies.—Rabies appears to be on the increase. Thirty-three outbreaks were reported to the Veterinary Department in 1935.

Child Welfare.

The welfare clinics previously established at Livingstone, Lusaka, Ndola and Luanshya functioned throughout the year, and reports received are most encouraging. This work among both Europeans and natives is developing and increasing. At Lusaka, Ndola and Luanshya full-time nursing sisters of the Government Service are engaged in welfare work. At Lusaka a second nurse is paid by the Town Management Board. At Livingstone a voluntary society interested in this aspect of medical work employs a nurse, and derives funds from annual grants-in-aid contributed by the Beit Trustees, the Railway Company, the Municipality and the Government.

Native Labour.

The Roan Antelope, Nkana, Mufulira, and Broken Hill mines have been active throughout the year, but the number of natives employed decreased from 17,000 to 15,000 during the year owing to curtailment in output. There is no recruiting at present, and this is due to general conditions of labour, which have been sufficient to induce thousands of natives to seek employment on the copper belt. All employees on these mines are housed and fed under hygienic conditions, and every attention is given to the sick. Modern ideas on health and hygiene are inculcated into the minds of the natives and there is no doubt that these men, when returning to their villages on the termination of their contracts, will not be satisfied to live under their normal conditions, and will thus spread this knowledge to the more remote areas.

The advancement of the native is only a matter of time, and the importance of these large native communities in close proximity to Europeans and under strict European supervision cannot be over-estimated.

At the end of May there were some unfortunate disturbances among the native employees on the copper belt, which necessitated intervention by the civil Police and a military detachment. Six natives were killed and a number wounded by rifle fire. There were, however, remarkably few repercussions and the labourers quickly settled down to their work again. A Commission, with Sir Alison Russell, K.C., as Chairman, was appointed to enquire into the disturbances and a full report* on the matter has been issued.

A Native Industrial Labour Advisory Board has been constituted to advise Government on all matters relating to Native Industrial Labour. The Senior Provincial Commissioner is Chairman.

V.—HOUSING.

European Government Housing.

The new houses at the new capital are brick built and are mostly of two-storey villa type without verandahs. There are also six blocks of flats, each flat containing two rooms, kitchen and bathroom. Each block contains eight flats. The newest houses and the flats are not mosquito-proofed. Old and new Government houses at Lusaka have been given water-carried, indoor sanitation.

Outside Lusaka, most Government quarters are brick buildings of bungalow type with wide verandahs, and many are provided with mosquito gauze, and domestic sanitation consists of earth closets.

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* Cmd. 5009.

European Non-Government Housing.

Modern buildings, most suitable to this country, and equipped with every convenience, are to be found on all the mines on the copper belt. Most privately-owned residences throughout the territory are similar to the older type of Government houses.

Native Housing.

In areas where most Europeans live the natives are housed in locations. The houses themselves, in most places, and their surroundings leave much to be desired, but efforts are being made to get away from the old compound atmosphere and to provide quarters best described as an improved African village. The Governor's Village and the personal servants' compound at the new capital are examples of this, and these have water-borne sanitary arrangements.

The housing of natives in the mining areas is very good on the whole, and compares very favourably with most town compounds in the railway line townships.

There are many evidences that natives themeselves appreciate good and sanitary housing, and improvement as to space, lighting and ventilation may be seen in native villages.

VI.—PRODUCTION.

Land and Agriculture.

Of the total area of the territory of approximately 275,000 square miles, some 13,700 square miles, or about 4½ per cent., have been alienated to Europeans. Most of the alienated land is used for grazing.

The following table illustrates the trend of arable farming since 1927. These figures and those in other tables relate only to settlers' holdings; no statistics of native production are available :—

Season.		*Maize.* *Acres.*	*Tobacco.* *Acres.*	*Wheat.* *Acres.*	*Total under cultivation.* *Acres.*
1927–28	...	**43,889**	**7,358**	**1,734**	**62,928**
1928–29	...	**39,215**	**3,232**	**2,572**	**67,207**
1929–30	...	**47,085**	**3,585**	**2,095**	**66,429**
1930–31	...	**42,974**	**2,328**	**1,594**	**76,092**
1931–32	...	**42,757**	**2,472**	**2,261**	**73,000***
1932–33	...	**34,036**	**2,236**	**2,271**	**63,000***
1933–34	...	**36,487**	**3,375**	**2,845**	**65,000***
1934–35	...	**40,018**	**3,411**	**3,234**	**70,000***

* Estimated.

The final column includes acreages under minor crops, orchards and bare fallows.

The 1934-5 season was not very satisfactory. Effective rains ceased abruptly early in February, and the summer cereals matured under severe conditions of drought. In addition, belated flying swarms of locusts caused severe local damage. Statistics of maize production from 1928 onwards are summarized in the following table :—

Year ending 31st December.	*Area in thousands of acres.*	*Average yield in in bags per acre.*	*Yield in thousands of bags.*	*Farm consumption in thousands of bags*	*Surplus available for sale in thousands of bags.*
1928	**44**	4·2	184	**32**	152
1929	**39**	5·1	202	**33**	169
1930	**47**	4·3	202	**37**	165
1931	**43**	4·5	194	**33**	161
1932	**43**	6·9	296	**46**	250
1933	**34**	3·6	122	**31**	91
1934	**36**	6·9	251	**38**	213
1935	**40**	4·0	160	**28**	132

Wheat is grown almost exclusively as a winter crop under irrigation, and production is practically confined to the Lusaka District. The wheat crop of 1935 was unprecedented both in total volume and yield per acre. Wheat production in recent years has been as follows :—

Year.	*Acreage.*	*Yield in bags of 200 lb.*	*Average yield per acre.*
1928	**1,734**	**8,512**	**4·9**
1929	**2,572**	**11,838**	**4·6**
1930	**2,095**	**9,583**	**4·6**
1931	**1,594**	**5,627**	**3·6**
1932	**2,261**	**11,373**	**5·0**
1933	**2,271**	**11,579**	**5·1**
1934	**2,845**	**12,564**	**4·4**
1935	**3,234**	**18,228**	**5·6**

Tobacco is the one important export crop and is grown chiefly in the Fort Jameson District. The season was favourable for the early plantings but the later ones suffered from drought, and the yield and quality of these were reduced. The acreage under all types was slightly greater than in the previous year and the total crop was 1,580,000 lb. of cured leaf. Of this 24,000 lb. were sun-cured. Roughly 600,000 lb. were sold in African markets and a slightly smaller quantity was exported overseas.

Minor crops such as groundnuts, potatoes, sweet potatoes, and pulses are of trivial importance in comparison with maize, wheat and tobacco. Increased demand has stimulated the market-gardening industry and 830 tons of mixed vegetables were sold.

The territory continues to obtain the bulk of its fruit requirements from Southern Rhodesia and the Union of South Africa. Deciduous fruit trees are successful only in a few favoured localities, but citrus thrives in most places where irrigation is possible. The equivalent of about 6,000 cases of locally-produced citrus fruit was sold.

There was a large "carryover" of maize from the heavy crop of 1934 and, though the present one is considerably below normal, supplies are greater than the territory is likely to absorb before the new crop comes on the market. The marketing of maize was considered by the newly appointed Agricultural Advisory Board and the establishment of maize control was recommended. The necessary legislation was passed at the end of the year and will come into operation on the 1st May 1936. From a study of maize yields obtained since the war it is evident that not only are bad years less disastrous than they used to be, but favourable seasons are more fully exploited. The upward trend in maize yields may be ascribed to the abandonment of inferior lands and to the marked growth of the practice of green-manuring. The Creamery proved of great service to farmers in possession of dairy herds, and more crops are being grown for feeding purposes.

Several of the young coffee estates at Abercorn are now bearing. The preliminary indications of quality are unquestionably satisfactory, but the future of the industry will depend on the maintenance of prices and on the ability of the bushes to give a reasonably sustained yield under local conditions. Apart from the White Borer there is no serious pest at present. It is now evident that irrigation and heavy manuring will be essential on the light soils of the Abercorn coffee plantations. Some 630 cwt. of coffee was produced during the year.

Red locust hoppers gave little trouble during the year as their emergence was checked by egg parasitism, and numbers were still further reduced by an epidemic of disease caused by the fungus *Empusa grylli*. The territory would have escaped unscathed had there not been a brief but disastrous invasion by flying swarms from the south early in the year. These swarms soon succumbed, but not before they had inflicted considerable and unavoidable damage. The customary pre-breeding migration from Angola and the Belgian Congo did not take place and there is reason to hope that the main swarm cycle is now nearing completion.

Veterinary.

The position with regard to diseases among stock remained substantially unchanged during 1935.

Contagious bovine pleuro-pneumonia is still enzootic in the Barotse Province. A comprehensive scheme for its eradication is being considered at the moment by the Colonial Development Advisory Committee.

Every effort was made during the year to eradicate foot-and-mouth disease from the territory and there are indications that the campaign will be completely successful.

The usual incidence of redwater, gallsickness, heartwater and other tick-borne diseases occurred, and it is unfortunate that certain stockowners still fail to realize the value of short-interval dipping in the control of these conditions.

Trypanosomiasis is very prevalent in certain areas of the territory.

Sporadic outbreaks of anthrax, quarter evil and other bacterial diseases occur and are controlled by prophylactic inoculation.

The territory remains free from rinderpest and East Coast fever.

The incidence of parasitic worms is high, particularly in sheep.

Pigs are singularly free from disease and thrive well.

Outbreaks of fowl typhoid and fowl pox occur among poultry. Prophylactic inoculation is employed by the more progressive flock owners.

Despite the increased demand for slaughter cattle during the year, it was possible to supply all requirements from sources within the territory and no importations of slaughter stock from Southern Rhodesia or Bechuanaland were permitted.

Importation of breeding stock from Southern Rhodesia and the Union of South Africa continued throughout the year. It is unfortunate that these importations were not greater in number, as fresh blood is badly needed in the herds of the territory.

The Livestock Co-operative Society increased its membership during 1935. At the November session of the Legislative Council a Cattle Levy Bill was enacted, to come into force on the 1st January 1936. This provides for the collection of a levy of 3 per cent. on the sale of all slaughter cattle; the proceeds of the levy to be devoted to such purposes for the improvement of the cattle industry of the territory as the Governor may approve. The running expenses of the Livestock Co-operative Society will also be a charge on the levy. It is hoped by this means to place the Society on a sound basis whereby it will facilitate the sale of all farm-bred and traded cattle.

The Creamery at Lusaka continues to prosper and is well supported by farmers, to whom the monthly cream cheque is a welcome asset. Butter is still imported into the territory as the Creamery supplies are not equal to the demands of the large mining communities in the north.

Slaughter sheep are imported from the south as local supplies are insufficient. On the other hand, some difficulty is experienced in obtaining a market for all the pigs produced in the territory.

Mining.

PRODUCING MINES.

Roan Antelope.—Underground mining is moving steadily westwards from the main shaft, and the ore body in the curve of the syncline down to the 620 level is nearly mined out. Two large vertical shafts to the west have been sunk and will shortly be ready for use at the 820 level. In October surface subsidence on the point of the syncline commenced, and was followed by a general subsidence on this area in November which will relieve the pressure on the lower workings.

Copper production in the early months of the year was at the rate of 5,800 tons per month. This was reduced by quota agreement in May to 4,500 tons, and from June onwards to 4,200 tons per month. The amount of labour thrown out of employment by this reduction of work has been small.

The total quantity of copper produced was 59,954 tons.

Nkana.—Owing to the restrictions of copper output when the quota commenced in May, mining operations were reduced but the labour force was only slightly curtailed. Work on the Mindola section of the mine increased, the main vertical and four incline shafts continued sinking and a main connecting drive advanced rapidly with stope preparation in progress above one section of it. A new fine ore storage bin has been erected but no other major construction work was done.

The electrolytic refinery has operated satisfactorily, producing approximately 24,000 tons of cathode copper. Monthly shipments of cobalt alloy and blister copper continued, totalling in the year 918,775 lb. and 36,863 tons of cobalt and copper metal respectively.

Mufulira.—The development of the mine for large scale production was continued. The main vertical shaft was sunk to 1,100 feet, and connected to the workings by the end of the year.

The tonnage of ore raised was increased by supplementing the development ore by stoping.

The mine has been railing concentrates up to its quota allowance to the Roan for smelting from the beginning of May. The output for the year was 23,075 tons.

A large construction programme has been carried through during the year to equip the mine with a concentrator plant to handle 6,000 tons of copper per month and also a smelter; this work was nearly complete at the end of the year.

Broken Hill.—Zinc prices have been low but the plant has worked at full capacity, the tonnage railed per month averaging 1,720 tons.

Vanadium was in demand throughout the year, and all sources of vanadium in the mine were worked to obtain the maximum tonnage that the plant could deal with. The tonnage of concentrates from the tables was supplemented by hand-picked lump ore recovered from dumps.

All ore has been won from open cast workings.

The hydro-electric power plant worked at capacity during the year.

Luiri Gold Areas.—Matala shaft was sunk to the third level and the ore body tested by drives and crosscuts. Values not being encouraging, work was stopped and the shafts closed. Diamond drilling at Dunrobin has not proved any regular or reliable ore below water level of sufficient tonnage to warrant the outlay on a large pumping plant; a tonnage of rubble at surface and two new ore bodies in the upper workings will be mined.

Shafts and drives on the Shaddock workings have exposed an ore body about 150 feet long between the 50 and 120 feet levels.

The mill and power plant are being moved from Matala to the vicinity of Dunrobin where they will treat the Shaddock and Dunrobin ore.

New Jessie Mine.—The Mill has been supplied with ore from the Jessie and Klipspringer No. 1 and 2 claims.

The total gold extracted was 1,043 ounces, which includes gold won from the cyanide treatment of the sands dump.

Sasare West Mine.—This mine continued work on a small scale; the return of gold for the year was 598 ounces.

Sachenge Mine.—A small quantity of mica has been produced each month, most of which was of the smaller-sized sheets.

Cassisterides.—An average of half a ton of cassiterite per month was extracted from the gravels on this property. Larger scale working is handicapped by the shortage of water.

Development Mines.—None of the partially developed mines in the territory has been working during the year.

Rhokana Concession.—(Rhodesia Congo Border Concession and Nkana Concession.)

Field parties have been investigating the geological structure of the country along the Congo border in the vicinity of Kipushi and Tshinsenda, in order to delimit areas that may possibly include copper ore bodies.

Two thousand three hundred and twenty-seven square miles were traversed and geologically mapped.

Loangwa Concessions.—Work on the Rhino mine, over which a prospecting option was held, was stopped in the middle of November, the results being disappointing.

Intensive prospecting and development was carried out on several gold occurrences, but up to the present there has not been sufficient ore proved to erect a mill on any of them.

Three thousand four hundred and eighty-three square miles were traversed and geologically mapped of which 748 square miles were in the North Charterland Area.

Rhodesia Mineral Concession.—One hundred and forty-four square miles were geologically traversed and mapped. Some samples obtained yielded gold values.

Five geologists and three prospectors have been at work on gold prospects in the Chakwenga area 100 miles east of Lusaka and 25 to 40 miles south of the Great East Road.

The results to date are encouraging.

Trenching is in progress a few miles from Chisamba where the soil carries gold-bearing quartz boulders.

GENERAL.

The year opened with the price of copper at £27 per ton. The producers outside the United States held a conference in March, at which a quota agreement was arranged. This quota came into effect in May. The mines in the territory reduced their tonnages of output considerably, but were compensated by a rapid increase in the price of the metal to £35 per ton.

MINERAL PRODUCTION.

		£
	Tons.	
Copper (Blister)	119,927·23	3,786,395
Copper (Electrolytic)	23,574·02	845,079
	Lb.	
Cobalt	918,775	206,725
	Oz.	
Gold	1,646·64	11,683
	Tons.	
Manganese Ore	3,976	5,965
	Lb.	
Mica	4,235	398
	Oz.	
Silver	151·22	18
	Tons.	
Tin	5·20	1,145
	Lb.	
Vanadium	381,109	78,895
	Tons.	
Zinc	20,645	290,151
Zinc (other)	34·72	420
Lead	181·82	3,096
Total value, 1935		£5,229,970
The total value of mineral produced in 1934 was		£4,776,134

VII.—COMMERCE.

The external trade of the territory during 1935 maintained the comparatively satisfactory condition which was reached in the year 1934, the volume of imports and exports approximating closely to that year's figures.

The value of merchandise imported during the year under review amounted to £2,902,960 as against £2,884,506 in 1934, an increase of £18,454 or 0·6 per cent. In addition, Government stores to the value of £57,882 and specie to the value of £52,836 were imported.

The total exports of merchandise were valued at £4,774,579 as compared with £4,530,933 in 1934, an increase of £243,646 or 5·4 per cent. In addition specie to the value of £23,959 was exported.

Large importations of machinery and plant continued during the year, mainly in connection with the development at the Mufulira

Copper Mines, the metals and machinery class of imports accounting for £1,210,149, representing 41·7 per cent. of the total value of imports, and approximating closely to the value of this class of goods in 1934 when the figure was £1,187,340.

The British Empire supplied 79·4 per cent. of the total imports of merchandise during 1935, and the percentages of Empire imports for the previous four years were as follows :—1931, 73·8 per cent., 1932, 74·8 per cent., 1933, 76·8 per cent., and 1934, 75·2 per cent. The United Kingdom supplied 45·9 per cent. Of the foreign countries, the United States of America was the largest supplier, with 9·3 per cent. of the import trade.

Minerals constituted 96·2 per cent. of the total value of domestic exports during the year, copper alone representing 85·2 per cent. The United Kingdom and Germany furnished the principal markets for our domestic exports, taking 52·7 per cent. and 24·7 per cent. respectively of the total value.

The trade balance is in favour of exports to the extent of £1,871,619, whereas in 1934 it was £1,646,427.

The following figures show the value of imports of merchandise and the value of exports—excluding specie—for the past ten years :—

Year.	*Imports.*	*Exports.*
	£	£
1926	1,667,584	484,382
1927	1,957,138	755,525
1928	2,366,317	847,068
1929	3,602,417	899,736
1930	4,862,722	885,976
1931	5,140,548	1,178,515
1932	1,864,902	2,675,248
1933	1,931,829	3,715,396
1934	2,884,506	4,530,933
1935	2,902,960	4,774,579

Imports.

The following summary furnishes a comparison of the value of merchandise imported during the years 1932 to 1935 which originated from British and from foreign countries :—

Imports from	*1932.*	*1933.*	*1934.*	*1935.*
	£	£	£	£
Union of South Africa	395,018	404,540	448,629	410,140
Southern Rhodesia...	328,959	346,261	422,574	449,673
United Kingdom and other British Possessions	670,465	732,072	1,299,686	1,444,298
Total British Empire	1,394,442	1,482,873	2,170,889	2,304,111
Foreign countries	470,460	448,956	713,617	598,849
Total Merchandise	£1,864,902	1,931,829	2,884,506	2,902,960

For the purpose of illustrating the routes of trade, the following table shows the value of merchandise received from the Union of South Africa and Southern Rhodesia and directly from overseas during the years 1932 to 1935 :—

Imports from	*1932.*	*1933.*	*1934.*	*1935.*
	£	£	£	£
Union of South Africa	451,144	502,643	626,520	552,485
Southern Rhodesia...	914,537	857,248	1,040,278	1,085,314
Imported from overseas	499,221	571,938	1,217,708	1,265,161
Total	£1,864,902	1,931,829	2,884,506	2,902,960

The following table illustrates the comparative value of the principal classes of imports during the years 1931 to 1935 :—

	1931.	*1932.*	*1933.*	*1934.*	*1935.*
	£	£	£	£	£
Animals (living)	68,315	29,036	367	13,845	9,015
Foodstuffs, etc.	468,297	262,221	197,810	299,444	218,662
Ales, spirits, wines, etc. (potable)...	145,686	84,485	74,475	88,052	93,306
Spirits (non-potable) ...	4,564	1,523	1,400	1,928	1,846
Tobacco	92,124	61,622	53,432	62,071	63,393
Textiles, apparel, yarns, fibres	579,192	319,835	308,423	350,353	311,109
Metals, metal manufactures, machinery and vehicles	2,504,339	391,531	486,546	1,187,340	1,210,149
Minerals, earthenware, glasses and cement ...	257,910	132,251	176,292	247,218	253,649
Oils, waxes, resins, paints and varnishes	244,379	142,811	126,318	137,597	140,151
Drugs, chemicals and fertilisers	91,623	52,828	64,175	85,588	76,614
Leather, rubber and manufactures thereof... ...	133,080	57,032	58,854	78,403	64,575
Wood, cane, wicker and manufactures thereof ...	152,421	51,493	48,092	71,749	48,009
Books, paper and stationery	71,294	36,260	34,805	38,546	44,300
Jewellery, timepieces, fancy goods, etc.	59,804	29,778	25,419	28,310	32,773
Miscellaneous	267,520	212,196	275,421	264,062	235,409
Total imports	£5,140,548	1,864,902	1,931,829	2,884,506	2,902,960

Exports.

The following table shows the value of the total exports during the years 1932 to 1935 :—

	1932.	*1933.*	*1934.*	*1935.*
	£	£	£	£
Domestic exports	2,436,170	3,588,609	4,399,990	4,667,870
Imported goods re-exported ...	239,078	126,787	130,943	106,709
Total merchandise exported ...	2,675,248	3,715,396	4,530,933	4,774,579
Specie	30,437	31,958	9,462	23,959
	£2,705,685	3,747,354	4,540,395	4,798,538

The following summary furnishes a comparison of the value of exports to the Union, Southern Rhodesia, the United Kingdom and other British Possessions, and to foreign countries, distinguishing domestic exports and imported goods re-exported, during the years 1932 to 1935 (excluding specie) :—

Domestic exports.	*1932.*	*1933.*	*1934.*	*1935*
	£	£	£	£
Union of South Africa	29,300	60,325	69,580	162,300
Southern Rhodesia	31,544	18,766	20,210	26,768
United Kingdom and other British Possessions	778,024	1,179,719	1,947,989	2,466,129
Foreign countries	1,597,302	2,329,799	2,362,211	2,012,673
Total domestic exports	£2,436,170	3,588,609	4,399,990	4,667,870

Imported goods re-exported.	*1932.*	*1933.*	*1934.*	*1935.*
	£	£	£	£
Union of South Africa	74,881	30,896	37,870	27,474
Southern Rhodesia...	124,108	68,480	63,879	66,772
United Kingdom and other British Possessions	7,504	14,941	19,211	1,693
Foreign countries	32,585	12,470	9,983	10,770
Total imported goods re-exported..	£239,078	126,787	130,943	106,709

The following table illustrates the comparative value of the principal items of domestic exports for the years 1931 to 1935 :—

	1931.	*1932.*	*1933.*	*1934.*	*1935.*
	£	£	£	£	£
Copper	505,204	2,087,620	3,114,618	3,705,783	3,976,504
Cobalt alloy	—	—	39,008	191,755	132,646
Zinc...	200,675	1,088	275,834	330,454	295,092
Vanadic oxide (fused) ...	73,760	164,752	19,638	15,676	45,522
Vanadium	17,871	32,266	—	21,548	35,873
Gold	35,390	41,277	6,833	6,351	6,032
Tobacco (unmanufactured)	33,346	39,209	35,196	41,669	43,220
Wood (unmanufactured) ...	4,027	9,622	11,626	20,891	25,931
Wood, manufactured and partly manufactured ...	29,929	23,414	36,829	42,215	78,712
Hides and skins	19,629	8,386	8,314	9,946	10,613

VIII.—WAGES AND COST OF LIVING.

The position in regard to employment continued to improve, and it was estimated that there were 63,400 natives in employment at the end of 1935 as compared with 49,700 at the end of 1934, 39,350 at the end of 1933, 42,000 at the end of 1932 and 79,000 at the end of 1931. Wages remained generally speaking on about the same level as in 1933. The average wage paid to mine labourers in the copper belt is 23s. 6d. per month and in the farming industry from 5s. to 12s. 6d. 17,381 natives were employed in the mining industry as against 14,245 in 1934, 10,029 in agriculture against 8,891 in 1934, 14,433 in domestic employment against 10,338 in 1934. There was a decrease in the number of natives employed in the building trade from 3,770 to 2,005. Other forms of employment showed little variation.

No recruitment of labour took place in the territory during the year, but there was a considerable independent exodus of natives to Southern Rhodesia, the Union of South Africa and Tanganyika Territory, and 49,000 natives were estimated to have been working outside the territory at the end of the year.

Generally speaking native employees receive rations in addition to their pay, though in some cases they draw an allowance in lieu of food issues. The cost of the allowance varies from about 9s. per month in towns to from 4s. to 6s. in the country districts. Wages remained very low for labourers in agriculture and building, and there was no noticeable increase as compared with 1934. In mining they were at about the same level as in 1934.

Wages ranged as follows during the year :—

- Clerks : from £2 to £8 per month.
- Artisans : from 30s. to £5 per month.
- Labourers :
    - Mines, surface : from 5s. to 28s. per month.
    - Mines, underground ; from 10s. to £2 10s. per month.
    - Agriculture : from 4s. to £1 per month.
    - Manufactures : from 10s. to 12s. 6d. per month.
    - Railways : from 10s. to 20s. per month.
    - Roads : from 10s. to 12s. 6d. per month.

The rates of pay on mines include those paid on small workings which apparently were not included last year, when the figures shown referred to the rates on the big copper mines only.

The average overall wage paid in the big copper mines is 23s. 6d.

The cost of living for Europeans is governed mainly by the cost of transport. Transport charges, even in the case of places on the railway, add considerably to the price of commodities. When transport by motor or other means is necessary, as it is in the case of places off the line of rail, the average price is still further increased.

The average price of various commodities on the line of rail is as follows :—

	Average. s.	d.
Bread, per lb. loaf		8
Local flour (1st grade), per lb.		4
Patna rice, per lb.		4
Mazawattee tea, per lb.	3	0
Sugar (white granulated), per lb.		4
Coffee (average, loose and tinned), per lb. ...	1	10
Butter, per lb.	2	0
Bacon, per lb.	2	0
Eggs (European farms), per doz.	2	0
Milk, per pint		4
Beef, per lb.		9
Soap (Sunlight), per packet...	1	6
Kerosene, tin of 4 gallons	10	0
Motor spirit (Shell), per gallon	3	0

The cost of clothing is from 30 to 50 per cent. higher than European prices.

IX.—EDUCATION AND WELFARE INSTITUTIONS.

For the education of European children there were, in 1935, controlled schools at Livingstone, Choma, Mazabuka, Lusaka, Broken Hill, Ndola, Luanshya, Nkana and Mufulira, offering preliminary education up to Standard VII, with the additional subjects, Latin, French, Algebra and Geometry in Standards VI and VII. There were schools at Mulendema and Silver Rest offering primary education up to Standard V. All these schools were under Government management, the tuition fees varying from 7s. 6d. to £1 17s. 6d. per quarter. The Convent School, Broken Hill, offering education up to the standard of the South African Matriculation Certificate Examination, and Mrs. Jeffrey's school at Fort Jameson, were controlled schools but under private management. During the year a number of small uncontrolled schools also remained open. Boarding accommodation was available for girls at the Beit School, Choma, and for boys at the Codrington School, Mazabuka, the boarding fees being £12 10s. per quarter in each case; and for boys and girls at Lusaka School, where the boarding fees were £9 per quarter. All three of these schools were under Government management. The Convent School, Broken Hill, under private management, also provided boarding accommodation.

Forty-nine teachers were employed in the controlled schools under Government management, the enrolment at the end of 1935 being 943. In addition, 102 children were attending controlled schools under private management and 48 were receiving education through the Southern Rhodesia correspondence classes.

Education for natives in Northern Rhodesia is still mainly provided through the agency of mission societies. These, however, receive financial support from Government and professional guidance from the inspecting officers of the Native Education Department.

Sixteen of the missionary societies operating in the country maintain village elementary schools, boys and girls boarding schools, and teacher training institutions recognized as eligible for Government grants. A total sum of £13,372 was directly distributed amongst them in recurrent grants in 1935. This amount included a grant of £250 from the Carnegie Corporation and £1,384 from the Barotse Trust Fund, the latter being distributed among the societies carrying on educational work in Barotseland.

Recurrent expenditure on Native Education during the year 1935 amounted to :—

	£
From Government revenue	23,150
Beit Railway Trust	750
Carnegie Corporation	1,000
Barotse Trust Fund	4,026
	£28,926

Since the year 1929 the sum of £13,800, generously granted by the Beit Railway Trustees, has been spent on building and equipping the Jeanes, normal, and elementary schools at Mazabuka. In connexion with the establishment of the Native Trades School at Lusaka, buildings were erected between 1932 and 1934 by means of appropriations from Loan Funds.

Owing to the growth of an inspectorate during the past few years, it is becoming possible to carry out more frequent inspections and to ensure that the moneys paid by Government are being utilized satisfactorily and that a steady improvement in the standard of education is being maintained.

One hundred and thirty-two African teachers passed the written part of the Government examinations during the year. There are now 590 natives who have passed the written section of the examination and 450 who have been given certificates after inspection of their practical work.

Annual returns show that the Government and Mission societies employed on 31st December 1935, some 1,700 teachers in 1,600 schools and " ungraded " schools. The majority of these teachers must still be classed as catechists or evangelists in charge of so-called " bush " schools and have never had an adequate course of professional training.

Approximately 400 certificated teachers were in the service of missions at the end of the year and qualified for Government grants-in-aid.

One hundred and sixty-four European teachers and technical instructors were engaged in Native education during the year.

Seventeen Europeans and forty-one African teachers and instructors, including the staff of the Barotse National School, comprised the staff of the Native Education Department.

Returns, which must be regarded as approximate, show that 15,787 boys and 6,914 girls attended recognized schools, while roughly 70,300 children attended " ungraded " schools. One thousand and thirty-two pupils are at present attending Government elementary and middle schools including the Barotse National School which is maintained entirely by the Barotse National Trust Fund. It is estimated that there are about 250,000 children of school age in Northern Rhodesia.

The foregoing figures give some idea of the magnitude of the task to which Government and missions are devoting themselves. The Jeanes Training School, established by Government at Mazabuka, is an important and effective agent in the work. At present there are sixteen selected mission teachers being trained as Jeanes teachers. Their wives also receive training in hygiene, child welfare, and other domestic subjects.

At Mbereshi (London Missionary Society), women teachers are being trained along Jeanes lines. A grant of £500 per year is given towards the cost of their training, half being borne by Government and half by the Carnegie Corporation. There are twenty girls' boarding schools subsidized by Government, with an enrolment of approximately 500 pupils. Domestic and vocational training is an important feature of the curricula of these girls' schools.

Boys receive training as carpenters, masons, and bricklayers at the Barotse National School, at Mbereshi, and to a lesser degree at several other mission stations. The Government trades school for the training of carpenters, masons, and bricklayers at Lusaka has fifty-four apprentices in training.

Government has also established an elementary and middle boarding school for boys at Mazabuka and elementary and middle co-educational schools at Ndola and Kasama. The Government Normal School at Mazabuka trains teachers for Government requirements and for the smaller missions which have no training schools of their own.

The proportion of recurrent expenditure (including grants from Trust funds) on Native education to the total expenditure was at the rate of approximately 3·9 per cent.; the amount spent per head of native population on Native education was approximately 4·8d. but it must be borne in mind that much the greater part of native education is carried out by the various missions, and it is impossible to compute with any accuracy what their educational services represent in terms of monetary expenditure. If it were possible to arrive at such a sum, the figure given above would be very largely increased.

X.—COMMUNICATIONS AND TRANSPORT.

Railways.

The railway from Southern Rhodesia via the Victoria Falls to the Belgian Congo passes through North-Western Rhodesia and branch lines serving the Roan Antelope, Nkana, and Mufulira copper mines radiate from the main line at Ndola. Three through passenger trains, on which dining-cars and sleeping accommodation are available, run weekly in each direction over the main line. In addition, local mixed trains with second-class and native accommodation run daily in each direction between Livingstone and Ndola. No dining-cars are attached to these latter trains, but stops are made at a convenient place sufficiently long to allow of passengers taking a meal at the local hotel. In addition to these, a regular goods-train service is in operation for the conveyance of goods and mineral traffic, and loads of 1,300 tons in the northward direction are regularly obtained over long sections by these latter trains.

River Transport.

Transport to stations in the Barotse valley is by barge along the Zambesi river, but for rapid transport light aeroplanes are now being used to Mongu, where there is a Government aerodrome. There is no sleeping accommodation on the barges, which are made fast to the river bank for the night whilst travellers camp on shore.

The journey up the Zambesi from Livingstone to Mongu by barge takes from twelve days to three weeks: by air it is effected in three hours.

Roads.

The roads of the territory are of earth with the exception of the portion of the Great North Road which runs from the Victoria Falls to Livingstone—a distance of some eight miles—and a stretch of two miles in Lusaka, which are bitumen-surfaced.

The arterial road system consists of three main routes, viz., the Great North Road from Livingstone, which runs adjacent to the railway as far as Kapiri Mposhi (460 miles) where it turns north-east to Abercorn and Mpulungu on Lake Tanganyika, a total distance of 982 miles. The principal towns and Government stations on this route are Kalomo, Choma, Mazabuka, Lusaka, Broken Hill, Mpika, Kasama and Abercorn. At Mpulungu the lake steamer connects with Kigoma on the Tanganyika Railway.

The Congo Border Road branches off from the Great North Road at Kapiri Mposhi and traverses the Copper belt, Bwana Mkubwa, Ndola, Nkana, Nchanga and Solwezi being the principal towns through which it passes. From Solwezi the road turns southwards and passing through Kasempa and Mumbwa joins the Great North Road again 45 miles south of Broken Hill. The length of the Congo Border road is 650 miles.

The Great East Road leaves the Great North Road at Lusaka and proceeds to Fort Jameson and the Nyasaland border, where it connects up with the Nyasaland road system. The distance to Fort Jameson is 392 miles and this town is 12 miles from the Nyasaland border.

In addition to the main routes mentioned above, there are 4,950 miles of secondary roads which connect settled areas and Government stations throughout the greater part of the territory.

The roads generally are passable for traffic during nine months of the year, but during the rainy season, from December to April, the traffic is restricted to 7,000 lb. gross loading on some roads and 5,000 lb. on others.

The arterial roads have, with the exception of the Congo Border road, been bridged and culverted with permanent structures. In the neighbourhood of Nkana, the Kafue was crossed by a six-span steel structure 300 feet long, connecting the above mine township with Ndola and the main road system of the Colony. This bridge was presented by the Beit Trust.

On other roads, waterways, etc., are crossed by bush timber bridges. A number of pontoons are provided at other major river crossings, for the use of which the Government charges a moderate fee.

Travellers can be accommodated at hotels and rest-houses at suitable points on all the arterial road systems.

Approximately 470 miles of the arterial road system in the Colony were reconstructed during the year as a first instalment of a programme by which it is hoped to establish the whole arterial road system of the Colony on its final alignment, to standardize its width and shape, and by means of mechanical grader maintenance to attain the maximum efficiency which is possible to an earth road under local climatic conditions.

The thickly populated industrial area known as the Copper belt is connected with its business centre, Ndola, by approximately 150 miles of road bearing heavy traffic, which follow generally rather unsatisfactory pioneer alignments. A new system of earth roads on final alignments is in process of construction incorporating a number of bridges which are being constructed with the assistance of the Beit Trust.

Postal.

The volume of correspondence and parcels dealt with by the Northern Rhodesia Post Office during 1934 rose almost to the level attained during the peak year 1931. The total number of items dealt with during the three years 1931, 1934 and 1935 was as follows :—

	1931.	*1934.*	*1935.*
Posted—Inland	2,121,324	1,403,472	1,736,982
External	1,980,576	1,302,802	1,776,580
Received—External ...	3,341,878	2,667,356	3,427,164
	7,443,778	5,373,630	6,940,726

Revenue from the sale of stamps fell from £23,396 in 1934 to £22,976 in 1935. The decrease is attributable to the introduction of penny postage to the countries of the South African Postal Union on the 1st January 1934.

Postal orders and money orders were issued during 1934 to the value of £90,280 and during 1935 to the value of £91,919.

Postal orders and money orders were paid during 1934 to the value of £34,871 and during 1935 to the value of £37,005.

The number of cash-on-delivery parcels dealt with rose to 10,442 representing an increase of 24 per cent. as compared with 1934. Trade charges collected during 1935 amounted to £20,591, being an increase of £3,021, or 18 per cent. as compared with the previous year.

Telegraphs.

The main telegraph and telephone trunk route runs beside the railway from the Victoria Falls Bridge to the Congo Border, with branches from Ndola to Luanshya (Roan Antelope Mine) and Ndola to Nkana and thence to Mufulira. Fort Jameson is connected with the Nyasaland system and Kasama and Abercorn with the Tanganyika Territory system.

Both the volume of traffic and the net telegraph revenue for the year were slightly lower than in 1934.

	1934.	*1935.*
Paid telegrams	51,595	50,964
Official telegrams	14,958	16,457
Net revenue...	£8,329	£8,229

Telephones.

Exchanges.—Government automatic exchanges are in operation at Broken Hill, Livingstone, Luanshya, Lusaka, Mazabuka and Ndola. Private licensed automatic exchanges are established at the Roan Antelope Mine (Luanshya), the Mufulira Mine, Bwana Mkubwa and Nkana.

Trunk call offices open for public service are established at all post offices on the line of rail and licensed exchanges have facilities for trunk intercommunication.

Telephone Revenue.

	1934.	*1935.*
	£	£
Exchange rentals	3,666	3,841
Call office and trunk fees	3,249	3,629
Miscellaneous	118	121
Total	£7,033	7,591

Wireless.

(*a*) *Aeronautical Services.*—Aeronautical wireless stations have been installed at Mpika and Broken Hill for radio-communication services principally in connexion with the Imperial Airways England—South Africa Air Route. Both are equipped for point-to-point communication by means of short-wave emissions and for communication with aircraft in flight, on a wave-length of 900 metres.

(*b*) *Internal and International Services.*—In addition to aeronautical radio-communication services, Broken Hill and Mpika maintain a public service, as Mpika is otherwise isolated. Short-wave stations have been installed at Abercorn, Livingstone, Mongu, and Fort Jameson, and an experimental short-wave station at Lusaka.

International communication is maintained by Broken Hill with the territories of Tanganyika, Southern Rhodesia, and the Union of South Africa.

Revenue is included in telegraph revenue.

Civil Aviation.

The main air routes of the territory published in the Northern Rhodesia Government Gazette under General Notice No. 510 of 1935 are as follows :—

"(1) *Livingstone to Balovale* (or intermediate stations) via Sesheke, Katimo Molilo, Sioma, Senanga, Mongu and Kalabo.

(2) *Livingstone to Ndola* (or intermediate stations) via Kalomo, Choma, Mazabuka, Lusaka, Chisamba, Broken Hill and Kapiri Mposhi.

(3) *Lusaka to Fort Jameson:* Via Nyangwena, Rufunsa, Beit Bridge, Nyimba and Sasare.

(4) *Broken Hill to Mbeya* (or intermediate stations) via Mtuga, Ndabala, Kanona (for Serenje), Kilonje, Mpika, Shiwa Ngandu, Chinsali, Isoka and Mwenimpanza.

(5) *Broken Hill to Abercorn:* via Mtuga, Ndabala, Kanona, Kilonje, Mpika, Kasama and Rosa.

(6) *Ndola to Abercorn:* via Kapiri Mposhi, Mtuga, Ndabala, Kanona, Kilonje, Mpika, Kasama and Rosa.

(7) *Ndola to Mbeya* (or intermediate stations) via Kapiri Mposhi, Mtuga, Ndabala, Kanona, Kilonje, Mpika, Shiwa Ngandu, Chinsali, Isoka and Mwanimpanza.

(8) *Abercorn to any line of rail station:* via Rosa, Kasama, Mpika, Kilonje, Kanona, Ndabala, Mtuga, Broken Hill and thence to the required destination via the Railway line.

(9) *Lusaka to Salisbury:* via Chirundu, Vitu, Miami, Zawi, Banket and Salisbury (the landing grounds and aerodromes between Chirundu and Salisbury are in Southern Rhodesia)."

In addition to the above the following air route has now been established :—

Lusaka—Matala Mine—Mumbwa.
Broken Hill—Matala Mine—Mumbwa.
Mazabuka—Matala Mine—Mumbwa.

Landing grounds also exist at Mwinilunga and Mkushi.

Aerodromes and landing grounds are maintained in good condition in the more settled areas, but it is not always possible to maintain distant emergency landing grounds to the same extent, although every endeavour is made to do so.

Airways.

The service of Imperial Airways operated with regularity throughout the year and was run in duplicate as from the 1st January 1935.

The French air service operating between Madagascar and Broken Hill extended its service in November to Elizabethville, Belgian Congo, where it links up with the Belgian Service to Europe. The machines of this service arrive at Broken Hill from Madagascar on Fridays and proceed to Elizabethville the same day. They return to Broken Hill the following day and then proceed on the return journey to Madagascar.

The air mail service (Transports Aériens du Katanga) operating between Elizabethville and Broken Hill to connect up with Imperial Airways machines operated a twice weekly service until November, since when one journey per week has been carried out in view of the extension of the French air service mentioned above.

The Rhodesian and Nyasaland Airways Limited carried out a weekly service between Livingstone and Ndola until November, after which date the weekly service was discontinued. A machine belonging to this company is now stationed at Lusaka permanently and is available to undertake journeys as required.

A Flying Club was formed in May 1935, with Headquarters at Lusaka and branches at Livingstone, Broken Hill, Matala Mine, Ndola, Mufulira, Luanshya and Nkana. A Hornet Moth aircraft has been purchased by the Club and this machine is expected to arrive early in January 1936.

XI.—BANKING, CURRENCY AND WEIGHTS AND MEASURES.

The Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial and Overseas) operate in the territory, with branches or agencies at the more important centres. The total deposits at those banks at 31st December 1935, amounted to £890,073, as compared with £873,070 at the end of the previous year.

The Post Office Savings Bank deposits amounted to £30,131 at 31st December 1935, as compared with £25,024 at the end of the previous year.

There is no Land or Agricultural Bank in the territory.

The Bank Notes and Coinage Ordinance, 1931, Bank Notes and Coinage (Amendment) Ordinance, 1934, and Proclamation No. 1 of 1935 prescribe as legal tender throughout the territory (*a*) Bank of England notes, (*b*) bank-notes issued by the Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial and Overseas) at their offices at Salisbury, Southern Rhodesia, (*c*) the standard coinage in use in England, (*d*) silver coinage of Southern Rhodesia for any amount not exceeding £2 sterling value and (*e*) cupro-nickel coinage of Southern Rhodesia for any amount not exceeding one shilling in value. The enactment of the first Ordinance on the 12th October 1931, marked the departure of Northern Rhodesia from the gold standard of currency.

The English standards of weights and measures are in force.

XII.—PUBLIC WORKS.

No building work of note was completed other than the following items in the new Capital at Lusaka :

Government House,
Electric Power Station,
Government Printing Office,
Central Government Offices,
European Hospital,
Temporary Legislative Council Chamber in the Central Offices,
One type " Z " House,
Two type " A " Bungalows,
Medical Officer's House,
Matron's House,
Nurses' Hostel.

Corrugated iron replaced by tiles on the roofs of Flats Nos. 2-6.

The above were constructed from Loan Funds Head G. The central portion of the Air Port Building, constructed from Beit Trust Funds to a design prepared by Mr. Graham Dawbarn, M.A., F.R.I.B.A., of Messrs Norman, Muntz & Dawbarn of London, was also completed, and the construction of the north wing well advanced by the end of the year.

The new Capital water supply was completed, and handed over to the Electricity Undertaking for administration on 1st September.

A further five miles of laterite road were constructed in the new Capital area.

XIII.—JUSTICE, POLICE AND PRISONS.

Justice.

Justice is administered by the High Court of Northern Rhodesia and by the Magistrates' Courts, subject to appeal to and review by the High Court.

During the year the High Court dealt with 146 civil matters as against 144 in the preceding year, and heard 12 actions and one appeal. One petition in bankruptcy was presented. Sessions were held during the year at points along the line of railway in May-June and at Fort Jameson in September. Forty criminal cases came before the Court, exclusive of reviews of judgments in the lower Courts; these latter numbered 257 of which 218 convictions involving one or more persons were approved, 20 quashed, 17 altered, and the remaining two cases were referred to the High Court on points of law.

Native Courts.

The Native Courts Ordinance was passed at the same time as the Native Authority Ordinance and was, like the latter Ordinance, applied to all the territory, with the exception of Barotseland, as from 1st April 1930.

Native Courts are established and constituted by the Governor and are of two grades. In addition to administering native law and custom, in so far as such is not repugnant to natural justice and morality, they are given power under the Native Court Rules to try certain offences against the laws of the territory. Their power to inflict punishment is strictly limited and the Magistrates' Courts have jurisdiction to revise and review their judgments, and in certain instances to order the re-trial of a case. District Officers may sit as assessors in Native Courts.

The Governor has the power to suspend and dismiss members, and Provincial Commissioners have a similar power, subject to a report being made to the Governor on each occasion on which it is exercised.

The general conduct of the Native Courts continues to be satisfactory and slow but steady progress is being made. Complaints against decisions have been few and justice in accordance with native custom is administered.

A total of 12,454 cases were tried by the Native Courts, of which 6,500 were civil and 5,954 were criminal.

Police.

Police prosecuted a total number of 9,350 cases during the year 1935. This shows a decrease of 163 cases on the figures for 1934. There was a decrease of 24 offences committed by Europeans under the Penal Code and a decrease of 35 offences under the local laws. Offences by natives under the Penal Code showed a decrease of 259 and under the local laws an increase of 155.

The following is a list of the more serious cases tried during 1935 :—

			Totals.	
Crime.	*Europeans.*	*Natives.*	*1935.*	*1934.*
Affray	4	51	55	142
Arson	—	9	9	23
Assault, common	28	159	187	163
Assault, O.A.B.H.	19	131	150	124
Assault on police	2	10	12	10
Burglary...	—	100	100	101
Embezzlement	—	—	—	7
Extortion	—	—	—	1
Forgery and uttering	—	60	60	135
Fraud and false pretences	4	17	21	70
Housebreaking	—	173	173	207
Indecent assault	3	13	16	19
Indecent curiosity	—	3	3	7
Manslaughter	4	23	27	25
Murder	—	31	31	18
Attempted murder	—	7	7	5
Perjury	2	2	4	9
Rape and attempted rape	—	15	15	13
Receiving	1	52	53	67
Robbery...	—	8	8	7
Theft, all forms...	14	1,013	1,027	1,037
Unlawful wounding	—	8	8	12

The foregoing figures include only those cases taken to court by the police and do not include cases heard by a Magistrate at stations where the police are not posted.

Prisons.

There are six central prisons in the territory, situated at Livingstone, Broken Hill, Kasama, Mongu, Fort Jameson and Lusaka. In addition to the central prisons there are also 28 local prisons situated at each of the other Government stations.

Committals to all prisons during the years were as follows :—

Livingstone	413
Broken Hill	617
Fort Jameson	152
Kasama	115
Mongu	554
Lusaka	59
All local prisons	5,258
Total	7,168

The daily average of prisoners for all prisons was 1,034. The daily average of sick was 39.

There were seven executions during the year as against three in 1934. There were 23 deaths from natural causes.

XIV.—LEGISLATION.

During the year under review, Sessions of the Legislative Council were held in May and November-December. Twenty-six Ordinances were enacted, of which 18 were amendments to the existing law.

The more important Ordinances are :—

The Railways (Commission) (No. 1 of 1935).
The Legislative Council (Amendment) (No. 3 of 1935).
The Native Tax (Amendment) (No. 9 of 1935).
The Penal Code (Amendment) (No. 10 of 1935).
The Maize Control (No. 20 of 1935).
The Cattle Levy (No. 22 of 1935).

The Railways (Commission) Ordinance gives effect to the agreement reached at Capetown in May 1934, between the representatives of the Governments of Southern Rhodesia, Northern Rhodesia and the Bechuanaland Protectorate and the Rhodesian Railway Companies. It repeals the existing law, Chapter 128, of the Revised Edition, but most of the sections of that law are re-enacted in their original or in a slightly modified form. The essential points of difference are in the provisions relating to the Reserves and Dividends and in the creation of a new account called the Rates Stabilization Account.

Under the repealed Ordinance a reserve of one and a half millions was built up but no provision was made for replenishing it once it had been drawn upon. Under the new law the Reserve Account is fixed at two and a half times the loan provision. This maximum may, however, be exceeded by accretions of non-recurrent revenue. Provision is also made for the replenishment of the reserve when it falls below the statutory maximum. The new law further provides for a dividend ranging from £75,000 to £150,000 according to the stage which the Reserve Account has reached, and for this purpose there are five stages which are set out in section 17.

Provision is also made for the creation and replenishment of a Rates Stabilization Account of a maximum amount of £500,000. The object of this is to prevent the inconvenience caused to commerce and the public generally by the periodical increase in rates which might be necessary in order to earn the standard revenue stipulated for in section 15. Instead of increasing rates for the purpose of producing the standard revenue, the Commission is empowered to draw within certain limitations on the Rates Stabilization Account. When the account exceeds £250,000 the excess may be drawn upon up to a maximum of £125,000, for the purpose of effecting a reduction in rates.

The Native Tax (Amendment) Ordinance introduces a more equitable system of native taxation. Under the old law, tax rates were prescribed for Provinces or Districts and a native paid the rate of tax obtaining in his district of domicile. The effect of this was that in the industrial areas natives earning identical wages paid widely different taxes. Under the new law the tax can be prescribed for any District, Area or Place, and residence in the District, Area or Place governs the rate of tax payable.

The Penal Code (Amendment) Ordinance sets out more precisely the law relating to the criminal liability of intoxicated persons, adds offences against the Witchcraft Ordinance to those offences for which a person may be deported from the territory, provides for the punishment of persons who return, or attempt to return, to the territory in defiance of a warrant of deportation, and enables the Governor in Council by Proclamation to declare any newspaper, book or document to be a seditious publication, and to prohibit the importation into the territory of any newspaper book or document.

The Maize Control Ordinance deals with the marketing of maize. It sets up a Control Board to which all maize produced is surrendered and the Board controls the selling price. Subject to the Governor's approval, the Board fixes the price at which it will liberate maize for sale in Northern Rhodesia; the Board also controls the import and export of maize.

The Cattle Levy Ordinance imposes a levy on all cattle bought within certain scheduled areas of the territory for slaughter and sale as meat. The levy is payable by the producer but is recoverable from the seller; the proceeds of the levy are to be used for the benefit of the cattle industry.

The more important subsidiary legislation is as follows:—

	Government Notice No.
The Nkana Mine Township Bye-Laws, 1935	**3**
The Railways (Deviations) Regulations, 1935	**4**
The Customs and Excise (Amendment) Regulations, 1935	**18**
The Road Boards Rules, 1935	**23**
The Criminal Procedure Code (Assessors' Allowances and Expenses) Rules, 1935	**33**
The Livingstone Municipal (Amendment) Bye-Laws, 1935	**34**
The Livingstone Municipal (Amendment) (No. 2) Bye-Laws, 1935 ...	**35**
The Foot and Mouth Disease Regulations, 1935...	**41**
The Liquor Licensing (Amendment) Regulations, 1935...	**48**
The Motor Traffic (Amendment) (No. 2) Regulations, 1935	**50**
The Customs and Excise (Amendment) (No. 3) Regulations, 1935 ...	**72**
The Arms and Ammunition (Amendment) Rules, 1935...	**79**
The Importation of Plants (Amendment) (No. 2) Regulations, 1935 ...	**92**
The European Officers' Pensions (Amendment) (No. 2) Regulations, 1935	**102**
The Restriction of Traffic on Roads (Amendment) Regulations, 1935...	**104**
The Motor Traffic (Amendment) (No. 3) Regulations, 1935	**121**
The Cattle Levy Regulations, 1935	**127**
The Lusaka Township (Rating) Regulations, 1935	**128**
Orders in Council.	
The Northern Rhodesia (Legislative Council) (Amendment) Order in Council, 1935	**36**
The Treaty of Peace (Covenant of the League of Nations) Order, 1935...	**109**
The Carriage by Air (Parties to Convention) (No. 2) Order, 1935 ...	**111**

XV.—PUBLIC FINANCE AND TAXATION.

The revenue and expenditure for the past seven years have been :—

Year.	*Revenue.*	*Expenditure.*		*Total Expenditure.*
		Recurrent.	*Extraordinary.*	
	£	£	£	£
1928–29	541,606	496,399	28,769	525,168
1929–30	672,289	532,367	22,160	554,527
1930–31	830,254	668,083	36,903	704,986
1931–32	856,376	793,798	26,258	820,056
1932	649,538	777,290	13,216	790,506
1933	718,283	773,985	4,894	778,879
1934	693,337	710,774	2,129	712,903
1935	833,484	780,930	25,499	806,429

These figures exclude repayments to the Imperial Exchequer of grants-in-aid received in 1924-25 and 1925-26, and the loan of £240,000 received from the Colonial Development Fund and lent to the Rhokana Corporation in 1934.

Loan expenditure on capital development amounted to :—

£566,801 at 31st March 1931.
£1,216,681 at 31st March 1932.
£1,475,130 at 31st December 1932.
£1,821,123 at 31st December 1933.
£1,991,387 at 31st December 1934.
£2,159,826 at 31st December 1935.

The public debt consists of £1,250,000 5 per cent. inscribed stock 1950-70 issued in 1932 and £1,097,000 3½ per cent. inscribed stock 1955-65 issued in 1933.

The assets of the territory at the 31st December 1935 consisted of :—

	£
Cash	210,486
Investments	53,975
Advances pending the receipt of grants from Beit Railway Trust	9,985
Sundry debtors	53,910
Stores	32,225
	£360,581

The liabilities were :—

	£
Post Office Savings Bank depositors	30,131
Native Reserves Fund	12,813
Sundry creditors	83,214
Northern Rhodesia 3½ per cent. Loan, 1955–65, unexpended balance	86,148
Sinking Fund	6,250
Total ...	£218,556

The main headings of taxation and yields during 1935 were as follows :—

	£
Licences	32,012
Native tax	129,271
Stamp duties	5,793
Customs and Excise duties	291,956
Income tax	142,270
Tax on official salaries	11,912
	£613,214

Licence fees are principally derived from trading, vehicles, arms, shooting of game, sale of liquor, and prospecting for minerals.

The annual native tax rates and the yields in 1935 are as follows :—

	£
Barotse Province (7s. 6d.)	24,882
Other Provinces (from 7s. 6d. to 15s. according to district)	104,389
	£129,271

All male natives are liable to pay one tax annually if they have reached eighteen years of age and are not indigent by reason of age, disease or such other cause as the District Officer may accept. Women and children are not liable and there is no tax on additional huts or on plural wives. It is not the practice to enforce payment on local natives who have been absent from the territory for periods exceeding twelve months if they are able to produce a tax receipt from an adjoining territory for that period and if they have not cultivated lands locally. The persons liable for tax are recorded in registers compiled under the supervision of District Officers. Collection is direct by officials of the Government and not by Native Authorities. Recovery for default is by distress through the Courts. The tax may be accepted in grain or stock or other produce at the discretion of the District Officer, but the practice is rare. The law does not impose labour in lieu of tax. Thirty per cent. of the Barotse tax is paid to a Trust Fund and applied directly to expenditure on native interests in the Barotse area.

Stamp duties, denoted by adhesive revenue stamps, are payable on all documents executed or received in the territory. The principal duties are :—

	£	s.	d.
Agreements			6
Bills of Exchange—			
Not exceeding £50			6
Exceeding £50 and not exceeding £100		1	0
Every additional £100		1	0
Cheques			2*
Land Grants—			
Not exceeding 10 acres		10	0
Rising to but not exceeding 3,000 acres	4	0	0
Every additional 1,000 acres	1	0	0
Equitable mortgages—			
Every £100		2	0
Receipt when sum exceeds £1			2*
Conveyances—			
Every £50 of value of property sold or conveyed		10	0

* By Ordinance 21 of 1935, these duties were reduced to 1d. with effect from 1st January 1936.

For Customs purposes Northern Rhodesia is divided into two zones known as the Congo and Zambesi Basins. The Congo Basin can roughly be taken to be all the territory north of a line drawn on a map of Northern Rhodesia in a south-westerly direction from Fife in the north-east to the border where the territory joins the south-east corner of the Belgian Congo. The remainder of the territory to the west and the south constitutes the Zambesi Basin. The Zambesi Basin is by far the more important part of the territory industrially, and more than 90 per cent. of the total trade is transacted in this area.

The Zambesi Basin is subject to Customs Agreements with Southern Rhodesia, the Union of South Africa, and with the Bechuanaland Protectorate, Basutoland, and Swaziland. The agreements provide in general for considerable rebates upon interchange of local manufactures, and for free interchange of raw products with limitation in regard to leaf tobacco.

The Congo Basin part of the territory is within the area defined by the Berlin Conference of 1885, and under the terms of the Convention revising the General Act of Berlin of 26th February 1885, and the General Act and Declaration of Brussels of the 2nd July 1890, signed at St. Germain-en-Laye on the 10th September 1919, commercial equality within this area must be granted to nationals of the Signatory Powers and those of States Members of the League of Nations which adhere to the Convention. This part of the territory is therefore excluded from the terms of the Customs Agreements mentioned in the preceding paragraph.

Empire preference is given in the case of the following classes of goods, which are mainly liable to *ad valorem* rates of duty :—clothing, blankets, and rugs, cotton piece-goods, motor cars and all articles usually imported for household and native use, the duty on Empire products being in almost every instance 10 per cent. or 12 per cent. and the duty on foreign products varying from 15 to 30 per cent.: in the case of cotton and silk piece-goods, shirts, singlets, and rubber shoes, from foreign countries, the tariff provides for alternative specific rates if the duty should be greater. Agricultural, electrical, mining, and other industrial machinery, pipes and piping, metals and metal manufactures imported for industrial purposes, if of Empire manufacture, are free of duty, and if of foreign origin, are subject to an *ad valorem* duty of 5 per cent., except foreign electrical machinery, on which an *ad valorem* duty of 15 per cent. is levied.

Specific rates of duty apply to practically all imported foodstuffs, motor spirit, lubricating oils, paraffin and cement, and to spirits, wines, beer, and tobacco; upon the latter items, apart from rum, no preference is granted except under the terms of the Customs Agreements with the neighbouring territories in the south, but varying rates of preference are granted to foodstuffs of Empire origin.

The Customs Tariff contains two scales of duty:—

Scale "*A*"—in respect of goods not entitled to preferential treatment;

Scale "*B*"—in respect of goods from the United Kingdom and British Possessions, and all goods imported into the Congo Basin area.

Ports of Entry.

The following are the ports of entry into and exit from Northern Rhodesia:—Ndola, Livingstone, Fort Jameson, Broken Hill, Lusaka, (free warehousing ports), Abercorn, Solwezi, Fort Rosebery, Chingola, Kawambwa, Mpika, Balovale, Mwinilunga, Isoka, Chiengi, Feira, Kazungula, Lundazi, and Mufulira.

Customs Agreements.

The terms of the agreement with the Union of South Africa provide for the transfer of the Union rates, or the Northern Rhodesia rates if higher, when imported goods are removed from the Union to Northern Rhodesia, and for the transfer of Union rates when imported goods are removed from Northern Rhodesia to the Union. In respect of local manufactures removed between the two territories, Government payments of 15 per cent. of the export value of foodstuffs, and 10 per cent. of the export value of all other local manufactures, are transferred except in the case of cigarettes, tobacco, beer, wines and spirits, which are directly taxed at tariff rates subject to the following rebates: cigarettes and tobacco manufactures, 75 per cent.; beer and wines, 50 per cent.; and spirits, 25 per cent. Free interchange of raw products is provided for, but Northern Rhodesia leaf tobacco exported to the

Union is limited to 400,000 lb. per annum free of duty, a similarly Union leaf tobacco exported to Northern Rhodesia is limited to 50,000 lb.

The terms of the agreement with Southern Rhodesia provide for a uniform tariff so far as possible, and for the transfer of the higher duty imposed in either territory when imported goods are removed from one territory to the other. In respect of local manufactures removed between the two territories, Government payments of 12 per cent. of the export value of foodstuffs and 9 per cent. of the export value of all other local manufactures are transferred, except in the case of beer, wines, and spirits, which are directly taxed at tariff rates subject to the following rebates:—beer and wines, 50 per cent.; spirits, 25 per cent. Cigarettes and tobacco of Southern Rhodesia or Northern Rhodesia manufacture are not liable to import rates upon removal from one territory to the other, but are subject to a transferred payment of the appropriate excise duties. Income tax on individuals is charged as follows:—

For every—	s.	d.
£1 of the first £100 of chargeable income	0	6
£1 „ next £100	1	0
£1 „ „ £100	1	6
£1 „ „ £100	2	0
£1 „ „ £100	2	6
£1 in excess of £500	3	0

The following deductions are allowed:—personal £300; for a wife £420; for children £100 each; for a dependant the amount expended, not exceeding £100; for life insurance premiums paid, not exceeding one-sixth of the income remaining after deducting the personal deduction.

An individual who is a non-resident and not a British subject is eligible for the personal deduction of £300 only. Company income tax is at the rate of four shillings in the pound. Relief is allowed in respect of United Kingdom and Empire income tax.

APPENDIX.

PUBLICATIONS OF GENERAL INTEREST RELATING TO NORTHERN RHODESIA.

Expedition to the Zambesi and Its Discovery of Lakes Shirwa and Nyasa. By D. and C. Livingstone. (John Murray, London. 1865. 21s.)

The Lands of the Cazembe. Translation of Dr. Lacerda's diaries and information about Portuguese expeditions. By Sir Richard Burton. Published by the Royal Geographical Society. (John Murray, London. 1873.)

Livingstone and the Exploration of Central Africa. By Sir H. H. Johnston. (Phillip & Son, London. 1894. 4s. 6d.)

On the Threshold of Central Africa. By F. Coillard. (Hodder & Stoughton, London. 1897. 15s.) Contains an account of the social and political status of the Natives.

Exploration and Hunting in Central Africa. By A. St. H. Gibbons. (Methuen & Co., London. 1898. 15s.) Contains a full, careful description of the Upper Zambesi, and an account of the subjects of Chief Lewanika.

Au Pays des Ba-Rotsi, Haut-Zambesi. By A. Bertrand. (Hachette, Paris. 1898. English Edition, Unwin. 16s.)

In Remotest Barotseland. By Colonel C. Harding. (Hurst & Blackett, London. 1905. 10s. 6d.)

The Great Plateau of Northern Rhodesia. By G. Gouldsbury and H. Sheane. (Arnold, London. 1911. 16s.)

The Ila Speaking Peoples of Northern Rhodesia. By Rev. E. W. Smith and Captain A. M. Dale. (MacMillan & Co., London. 1920. 2 vols. 50s.)

In Witch-bound Africa. By F. H. Melland. (Seeley, Service, London. 1923. 21s.)

The Making of Rhodesia. By H. Marshall Hole. (MacMillan & Co., London. 1926. 18s.)

The Way of the White Fields in Rhodesia. By Rev. E. W. Smith. (World Dominion Press, London. 1928. 5s.)

The British in Tropical Africa. By I. L. Evans. (Cambridge University Press. 1929. 12s. 6d.)

The Lambas of Northern Rhodesia. By C. M. Doke. (Harrap, London. 1931. 36s.)

A Faunal Survey of Northern Rhodesia, with Especial Reference to Game, Elephant Control and National Parks, with Maps. By C. R. S. Pitman. (Government Printer, Northern Rhodesia. 1934. 7s. 6d.)

Native Tribes of North-Eastern Rhodesia. By J. C. C. Coxhead. Published by the Royal Anthropological Institute.

Tribal Areas in Northern Rhodesia. By Thomson J. Moffat and W. G. Fairweather. (Government Printer, Northern Rhodesia. 3s.)

Native Tribes of the East Luangwa Province of Northern Rhodesia. By E. M. Lane Poole. (Government Printer, Northern Rhodesia. 1934. 3s.)

British South Africa Company's Reports on the Administration of Rhodesia.

European Education Committee. Report, 1929. (Government Printer, Northern Rhodesia. 2s.)

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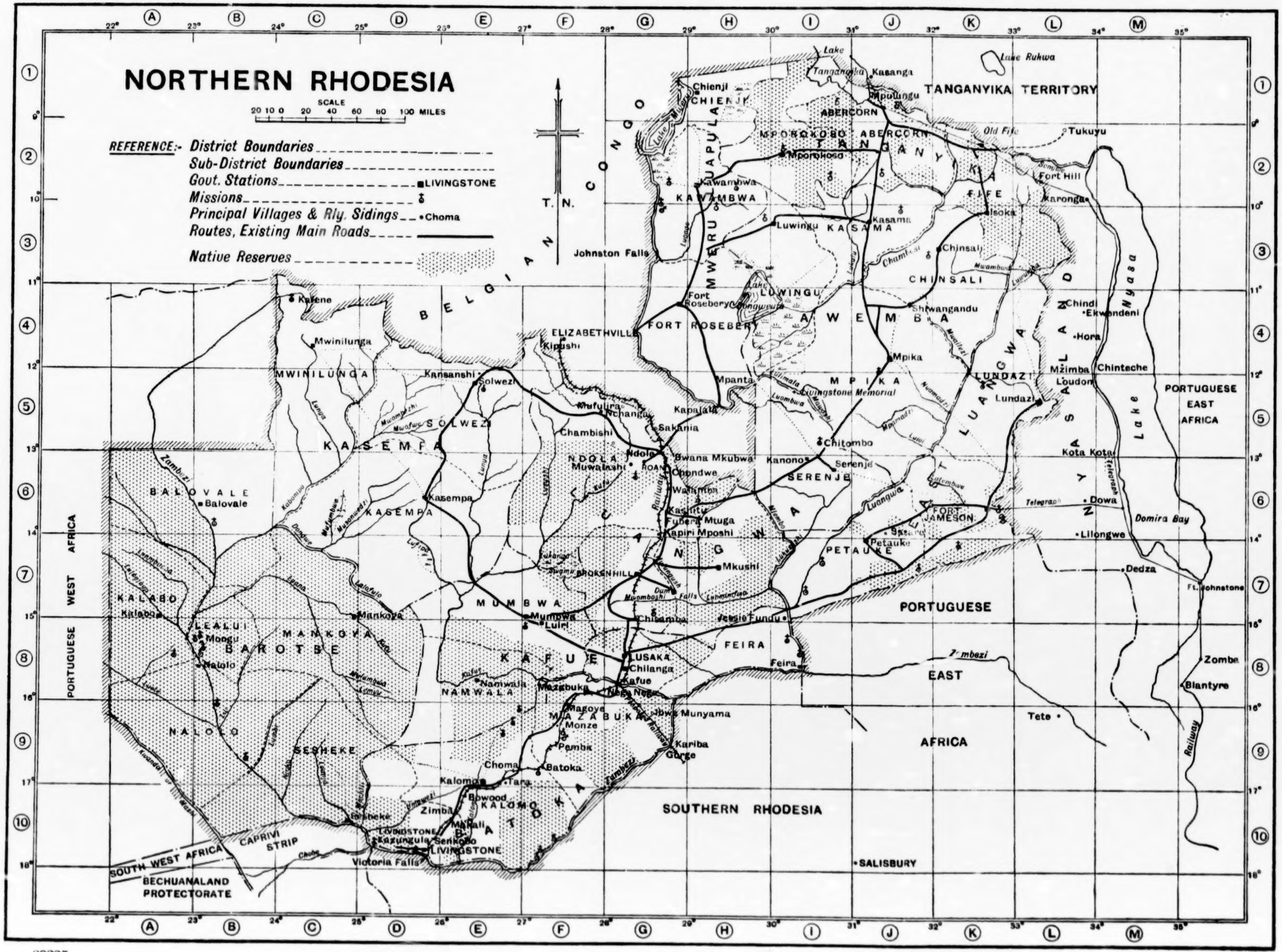
NORTHERN RHODESIA
SCALE
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REFERENCE:- District Boundaries
Sub-District Boundaries
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Missions
Principal Villages & Rly. Sidings • Choma
Routes, Existing Main Roads
Native Reserves
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BELGIAN CONGO
TANGANYIKA TERRITORY
PORTUGUESE EAST AFRICA
PORTUGUESE WEST AFRICA
SOUTHERN RHODESIA
SOUTH WEST AFRICA
CAPRIVI STRIP
BECHUANALAND PROTECTORATE
NYASALAND
MWINILUNGA
SOLWEZI
KASEMPA
BALOVALE
KALABO
BAROTSE
MANKOYA
NALOLO
SESHEKE
MUMBWA
KAFUE
NAMWALA
MAZABUKA
KALOMO
LIVINGSTONE
BATOKA
NDOLA
LUANGWA
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LUWINGU
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MPOROKOSO
ABERCORN
CHIENJI
TANGANYIKA
FIFE
ELIZABETHVILLE
Johnston Falls
Lake Tanganyika
Lake Mweru
Lake Bangweulu
Lake Nyasa
Lake Ruhwa
Zambezi
Kafue
Luangwa
Railway
Telegraph
Victoria Falls
Lusaka
Broken Hill
Kapiri Mposhi
Chilanga
Choma
Kalomo
Mongu
Lealui
Kasanga
Mpulungu
Tukuyu
Fort Hill
Karonga
Isoka
Chitambo
Livingstone Memorial
Mkushi
Kariba Gorge
Salisbury
Tete
Zomba
Blantyre
Ft. Johnstone
Dedza
Lilongwe
Dowa
Domira Bay
Kota Kota
Mzimba
Chinteche
Loudon
Ekwendeni
Hora
Chindi
Mufulira
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Chambishi
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No. 1811

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1936

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ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF NORTHERN RHODESIA, 1936

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I.—GEOGRAPHY, CLIMATE, AND HISTORY.

Geography.

The territory known as the Protectorate of Northern Rhodesia lies between longitudes 22° E. and 33° 33′ E. and between latitudes 8° 15′ S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South West Africa, comprising in all an area that is computed to be about 290,320 square miles. The River Zambesi forms the greater part of the southern boundary; its two main northern tributaries are the rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

History.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown territory.

The Portuguese Governor of Sena, Dr. Lacerda, encouraged by the report of the half-breed Fereira who returned from Kasembe's capital, close to the eastern shores of Lake Mweru in June, 1798, decided to set out on the expedition he had planned the year before, and on 3rd July, 1798, left Tete for the north. He was accompanied by Fathers Francisco, Jose and Pinto, twelve officers and fifty men-at-arms, but failed to reach his goal, and died within a few miles of Kasembe's capital. Father Pinto led the remnants of the expedition back to Sena, and it is from Dr. Lacerda's diaries, which Father Pinto with great difficulty saved, that the first authentic history of what is now North-Eastern Rhodesia was taken. Dr. Lacerda was followed in the early 19th century by two Portuguese traders, Baptista and Jose, who brought back stories of the great interior kingdom of the Balunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the 16th to the 19th century. Very few historical facts are known about it, but the name of Mwatiamvo, the dynastic title of the paramount chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and in 1855 discovered the Victoria Falls, that the civilised world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls, were Serpa Pinto, Cameron, Selous and Arnot.

From the very early days when the hordes of migratory Bantu swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasion from stronger tribes on its borders, so much so, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambesi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time the population of the territory has been classified into seventy-three different tribes, the most important of which are the Wemba, Ngoni, Chewa, and Wisa in the north-eastern districts, the Rozi, Tonga, Luvale, Lenje, and Ila in the north-western districts, and the Senga, Lala, and Lunda, members of which are resident in both the eastern and western areas. There are some thirty different dialects in use, but many of them vary so slightly that a knowledge of six of the principal languages will enable a person to converse with every native in the country. Chinyanja is in use as the official language of the police and is probably the language most generally spoken by Europeans; it is in reality a Nyasaland language—the word means "Language of the Lake"—but it is also spoken to some extent round Fort Jameson. In many instances the tribes overlap and encroach upon each other, and it is not uncommon to find a group of villages of one tribe entirely surrounded by villages of another tribe. Many of the tribes on the borders extend into neighbouring territories; in some instances the paramount chief resides in a foreign country and only a small proportion of the tribe lives in Northern Rhodesia.

The chief invaders of the early part of the 19th century were the Arabs from the north, the Angoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the territory, and the Makololo, an offshoot of the Basuto family, who in the beginning of the 19th century fought their way from the south through Bechuanaland and across the Zambesi under the noted Chief Sebitoani; they conquered the Batoka, the Masubia, and the Marozi and founded a kingdom which was distinguished by a comparatively high degree of social organization.

The duration of the Makololo kingdom was short, lasting between twenty and thirty years. Soon after the death of Sebitoani, the Marozi rebelled and massacred the Makololo to a man, keeping their women. As a result of this the influence of their occupation is still to be seen in the Sikololo language, which is largely spoken amongst the tribes near the Zambesi. The Marozi under Lewanika enlarged their kingdom by conquering several surrounding tribes, such as the Mankoya, the Malovale, and the Batoka. Beyond these limits their authority was both nebulous and ephemeral.

In the year 1891 Lewanika was informed that the protection of Her Majesty's Government had been extended to his country as he had requested that it should be, and on 17th October, 1900, the Barotse Concession was signed by him and his chiefs and representatives of the Chartered Company. The concession was confirmed in due course by the Secretary of State for the

Colonies and under its terms the Company acquired certain trading and mineral rights over the whole of Lewanika's dominion, while the paramount chief was to receive, among other advantages, an annual subsidy of £850.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lakes Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in 1893 the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave-raiders were occasionally encountered on the north-east boundary and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavery. This social serfdom was brought to an end by the edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Before 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland-North Western Rhodesia Order in Council placed the Company's administration of the western portion of the country on a firm basis; it was closely followed by the North-Eastern Rhodesia Order in Council of 1900 which had a similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924. In that year the administration of the territory was assumed by the Crown in terms of a settlement arrived at between the Crown and the Company, and the first Governor was appointed on 1st April, 1924.

Since that date rich copper deposits have been discovered in the north-west of the territory and have been developed into an extensive industrial area embodying three large townships with a population including several thousands of Europeans.

Climate.

There are considerable differences between various parts of the country. The Zambesi, the Luangwa and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November before the rains break, when the maximum is 97° F. at Zambesi valley stations and 85° F. at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90° F. with a mean minimum of 64° F., while the corresponding figures for the four months of the cold season (May to August) are 79°F. and 46° F.

The following table gives representative temperatures for the territory experienced during 1936:—

	Highest mean Max. °F.	*Month.*	*Lowest mean Min. °F.*	*Month.*	*Absolute Max. °F.*	*Month.*	*Absolute Min. °F.*	*Month.*
Livingstone, 3,160 ft.	95·4	Oct.	45·5	July	101·6	Nov.	37·0	June
Broken Hill, 3,920 ft.	89·6	Oct.	49·6	July	94·3	Oct.	39·6	May
Isoka, 4,210 ft.	88·1	Oct.	54·7	June	94·0	Sept.	50·0	June July
Balovale, 3,400 ft.	95·9	Sept.	48·0	June	106·0	Oct.	42·0	June

Highest temperature ... ... 116° F., Kanchindu
Lowest temperature ... ... 24° F., Sesheke

The rainy season usually commences in November and lasts until April. Slight showers occur to the north-east of the territory in August and to the north-east and north-west in September. In October the rains begin to spread over the whole territory, reaching a maximum in December.

The intensity of rainfall decreases in January, this falling-off appearing to be the nearest approach to a break in the rains, which is characteristic of the two seasonal areas of the central tropical zone.

In February the rains re-establish themselves over the whole of the central area of the territory, following much the same contour alignment as in December. In March the zone of heavy rainfall shifts well to the north and east. In April the rains have definitely moved north and in May have practically ceased.

The greatest rainfall recorded in 24 hours was 6·60 inches on the 25th March, 1936, at Johnston Falls in the Fort Rosebery district.

II.—GOVERNMENT.

Central Administration.

The office of Governor was created by an Order of His Majesty in Council dated 20th February, 1924, and the first Governor assumed his duties on 1st April, 1924.

The Governor is advised by an Executive Council which consists of five members—the Chief Secretary, the Attorney-General, the Treasurer, the Senior Provincial Commissioner, and the Director of Medical Services. Provision is also made for the inclusion of extraordinary members on special occasions.

The Order in Council provided that a Legislative Council should be constituted in accordance with the terms of the Northern Rhodesia (Legislative Council) Order in Council, dated 20th February, 1924, to consist of the Governor as President, the members of the Executive Council *ex officio,* nominated official members not exceeding four in number, and five elected unofficial members.

In 1929 the number of elected unofficial members was increased to seven consequent upon the very considerable increase in the European population.

The seat of government was transferred from Livingstone to Lusaka in 1935, the official inauguration of the new capital being arranged to coincide with the ceremonial celebration of His late Majesty's birthday on the 3rd of June.

Provincial Administration.

For administrative purposes the territory was formerly divided into nine provinces, each of which was under a Provincial Commissioner responsible for his province to the Governor. The provinces were grouped together under five Provincial Commissioners in 1933 and as from 1st January, 1935, the number of provinces was reduced to five. The provinces are divided into districts under the charge of District Commissioners responsible to the Provincial Commissioners.

Native Administration.

In 1936 a new Native Authority Ordinance was passed, which modified the previous Ordinance, providing for the recognition of Native Authorities by the Governor, instead of their appointment, as previously. Emphasis is laid on the development of tribal institutions on traditional lines. The Ordinance gives powers to Native Authorities to issue Orders and to make rules to enable them to govern and maintain order in tribal areas. Provision is also made for the setting up of Native Treasuries, and powers are given to Native Authorities to impose rates, dues and fees, subject to the Governor's approval. The passing of the Ordinance marks a definite advance in the development of tribal self-government. Native Treasuries will be set up during the coming year.

A similar Ordinance was also passed for Barotseland during the year, with the concurrence of the Barotse Native Government. It follows closely the provisions of the Native Authority Ordinance, but gives the Paramount Chief wider powers than are given to Native Authorities elsewhere. A Native Treasury has already been established in Barotseland, and its institution has resulted in a marked improvement in the control of moneys by the Barotse Native Government.

III.—POPULATION.

The first census of the territory took place on the 7th May, 1911, prior to the amalgamation in the same year of North-Eastern and North-Western Rhodesia under the title Northern Rhodesia; the second was held on the 3rd May, 1921, and the third on the 5th May, 1931.

The following table shows the increase of population since 1911 (the figures for European population for 1931 are census figures, whilst all those for African population are taken from the annual Native Affairs Reports):—

Year.	*Europeans.*	*Increase per cent.*	*Africans.*	*Increase per cent.*	*Proportion of Africans to one European.*
1911 ...	1,497	—	821,063	—	548·47
1921 ...	3,634	143	979,704	19	269·59
1931 ...	13,846	381	1,372,235	40	99

The increase in the number of Europeans between 1921 and 1931 was due to the influx which took place during the development of the copper mines in the Ndola district between 1927 and 1931. The mines had nearly completed construction towards the end of the year 1931 and a considerable number of Europeans left the territory in consequence.

The economic depression which set in towards the end of the same year was the cause of a further drop of 23·7 per cent. during 1932. In 1933 and 1934 an increase was brought about by the renewed activity at the copper mines. The European population is now in the region of 10,500.

The numbers of Asiatics and non-native coloured persons in the territory at the 1931 census amounted to 176 and 425 respectively.

The African population in 1934 was estimated to be 1,366,425, which showed a decrease of 4,788 or ·34 per cent. on the previous year, and its average density through the territory was 4·7 to the square mile. No count of the native population has since been made but so far as is known there has been little change.

Immigration.

Ten thousand seven hundred and fifty-five persons entered Northern Rhodesia during 1936. This number includes immigrants, returning residents, visitors, tourists and a small percentage of persons in transit. The immigrants numbered 1,212, of whom 1,115 were British subjects, and 97 alien, the percentage of aliens being 8·01.

The following comparative table of immigrants shows the progress of the territory.

1927.	*1928.*	*1929.*	*1930.*	*1931.*	*1932.*	*1933.*	*1934.*	*1935.*	*1936.*
1,038	1,066	1,861	3,651	1,702	615	801	1,726	1,352	1,212

Thirteen persons were removed from the territory under the Immigration Ordinance. Of this number five were indigent, seven illiterate, and one criminal.

Accurate figures of emigration are not available.

Seven destitute persons with seven dependants were repatriated at Government expense during the year, a decrease on the 1936 total of 25, on the 1934 total of 27, on the 1933 total of 173 and the 1932 total of 409. Thirteen of these persons were sent to the Union of South Africa, and one to Southern Rhodesia.

Asiatic Population.

The Asiatic population as at the 31st December, 1936, was approximately 360, as compared with 227 in 1935. All these Asiatics are British Indians.

IV.—HEALTH.

The medical facilities available to the European and native populations in the past were maintained throughout the year, and were as follows:—

European Hospitals.
Livingstone.
Lusaka.
Broken Hill.
Ndola.
Kasama.
Fort Jameson.
Mongu.

Native Hospitals.
Livingstone.
Choma.
Mazabuka.
Lusaka.
Broken Hill.
Ndola.
Kasama.
Fort Rosebery.
Fort Jameson.
Mongu.
Balovale.
Abercorn.

In addition to the above-mentioned hospitals, Government maintained 23 dispensaries on Government stations and 15 in rural districts in charge of native orderlies. The rural dispensaries were visited from time to time by the medical officer of the district.

Owing to the vastness of the territory and the lack of means of communication, the treatment of the African population presents considerable difficulty. It is hoped in the near future to begin to establish a chain of rural dispensaries.

A great deal of valuable medical work has been done by the various missions, who control many hospitals and dispensaries under the supervision of doctors, trained nurses and missionaries with some medical training; these services to the natives are subsidized by Government to the extent of £3,050 per annum.

The large mines in the copper belt maintain their own medical staff in addition to well-equipped hospitals in which they care for their employees. All destitute Europeans and unemployed natives are treated at Government expense, but those in the copper belt are, when possible, transported to the Government hospital at Ndola.

The railway maintains either full-time or part-time medical officers at Livingstone, Choma, Lusaka, Broken Hill and Ndola, who give medical treatment to railway employees as required.

School Inspections.—Medical and dental inspections of all European schools are carried out by Government medical officers and dental surgeons subsidized by Government, and parents are advised as regards the health of their children.

Subsidies are granted to dental surgeons at Livingstone, Lusaka, Broken Hill, Ndola and Fort Jameson. The response of European parents in seeking dental treatment is disappointing, although the impecunious receive free treatment.

European Vital Statistics.

	1930.	*1931.*	*1932.*	*1933.*	*1934.*	*1935.*	*1936.*
Number of deaths...	163	210	117	103	108	100	78
Deaths of infants under 1 year of age.	28	28	24	13	15	15	6
Mortality per 1,000 live births.	102·56	84·08	72·29	40·88	47·61	53·00	19·16

Number of Births: 313.

Birth rates and death rates are not now calculated since no sufficiently close knowledge of the population exists.

No appointments to the posts vacated in 1933 were made during the year, with the result that only skeleton health services were maintained; all medical officers attempt to perform the duties of medical officers of health, in addition to their clinical duties.

The general health of the country throughout the year was good, and no epidemic disease of great importance was recorded.

Malaria and Blackwater Fever.—Considerable anti-malarial measures continue to be undertaken by the chief mining companies with excellent results. The following table of European deaths indicates a general improvement of conditions:—

Deaths.	*1931.*	*1932.*	*1933.*	*1934.*	*1935.*	*1936.*
Malaria	22	16	3	10	8	9
Blackwater... ...	19	22	20	11	13	5

Trypanosomiasis.—Twenty-eight cases of this disease were reported during the year. All these cases were natives, and only five deaths occurred. The distribution of cases was as follows:—

	Cases.	Deaths.
Livingstone	1	1
Choma	1	—
Lusaka	1	—
Broken Hill	1	—
Ndola	2	1
Mine Townships	2	—
Abercorn	10	3
Mumbwa	9	—
Kasama	1	—
	28	5

Typhoid.—Nine European and 24 native cases were reported during the year. There were no deaths.

Variola.—There were no cases of variola major in 1936, but 96 cases of variola minor were reported from Mazabuka and Pemba.

Measles.—Several severe outbreaks of measles occurred in the Northern and Eastern Provinces with considerable mortality among infants. During the period January to March there were a number of outbreaks in the copper belt amongst Europeans and natives but none of these reached epidemic proportions.

Influenza.—Only one epidemic of influenza was reported, that being in the Fort Rosebery district where the total cases and deaths were 698 and 78 respectively.

Child Welfare.

The welfare clinics previously established at Livingstone, Lusaka, Ndola and Luanshya functioned throughout the year, and reports received are most encouraging. This work among both European and natives is developing and increasing. At Lusaka, Ndola and Luanshya full-time nursing sisters of the Government Service are engaged in welfare work. At Lusaka a second nurse is paid by the Town Management Board. At Livingstone a voluntary society interested in this aspect of medical work employs a nurse, and derives funds from annual grants-in-aid contributed by the Beit Trustees, the Railway Company, the Municipality and the Government.

Native Labour.

The Roan Antelope, Nkana, Mufulira, and Broken Hill mines have been active throughout the year, employing 15,527 natives. There is no recruiting for these mines at present, owing to the general conditions of labour, which have been sufficient to induce thousands of natives to seek employment on the copper belt. All employees on these mines are housed and fed under hygienic conditions, and every attention is given to the sick.

Modern ideas on health and hygiene are inculcated into the minds of the natives and there is no doubt that these men, when returning to their villages on the termination of their contracts, will not be satisfied to live under their former conditions, and will thus spread this knowledge to the more remote areas.

The advancement of the native is only a matter of time, and the importance of these large native communities in close proximity to Europeans and under strict European supervision cannot be over-estimated.

There was no shortage of labour, and no fewer than 51,212 natives were reported to be working outside the territory, chiefly in Southern Rhodesia, at the close of the year. Within the territory 77,300 were being employed, an increase of 11,000 over the figure for 1935.

The Native Industrial Labour Advisory Board, which was appointed in 1935, continued to give advice on all major problems affecting native labour, and in August a provisional agreement designed to regulate the flow of migrant native labour between the three territories of Northern Rhodesia, Southern Rhodesia and Nyasaland was signed.

The Witwatersrand Native Labour Association, being anxious to obtain labour from this territory, made an agreement with this Government whereby they were permitted to engage one thousand Northern Rhodesia native labourers as an experiment, in order to ascertain whether climatic and other conditions on the Witwatersrand justify recruiting on a larger scale.

V.—HOUSING.

European Government Housing.

The new houses at the new capital are brick built and are mostly of two-storey villa type without verandahs. There are also six blocks of flats, each flat containing two rooms, kitchen and bathroom. Each block contains eight flats. The newest houses and the flats are not mosquito-proofed. Old and new Government houses at Lusaka have been given water-carried, indoor sanitation.

Outside Lusaka, most Government quarters are brick buildings of bungalow type with wide verandahs, and many are provided with mosquito gauze. Domestic sanitation consists of earth closets.

European Non-Government Housing.

Modern buildings, most suitable to this country, and equipped with every convenience, are to be found on all the mines on the copper belt. Most privately-owned residences throughout the territory are similar to the older type of Government houses.

Native Housing.

In areas where most Europeans live the natives are housed in locations. The houses themselves, in most places, and their surroundings leave much to be desired, but efforts are being made to get away from the old compound atmosphere and to provide quarters best described as an improved African village. The Governor's Village and the personal servants' compound at the new capital are examples of this, and these have water-borne sanitary arrangements.

The housing of natives in the mining areas is very good on the whole, and compares very favourably with most town compounds in the railway line townships.

There are many evidences that natives themselves appreciate good and sanitary housing, and improvement as to space, lighting and ventilation may be seen in native villages.

VI.—PRODUCTION.

Land and Agriculture.

Of the total area of the territory of approximately 275,000 square miles, some 13,700 square miles, or about 4½ per cent. have been alienated to Europeans. Most of the alienated land is used for grazing.

The following table illustrates the trend of arable farming since 1928. These figures and those in other tables relate only to settlers' holdings; no statistics of native production are available:—

Season.	*Maize, acres.*	*Tobacco, acres.*	*Wheat, acres.*	*Total under cultivation, acres.*
1928–29	39,215	3,232	2,572	67,207
1929–30	47,085	3,585	2,095	66,429
1930–31	42,974	2,328	1,594	76,092
1931–32	42,757	2,472	2,261	73,000*
1932–33	34,036	2,230	2,271	63,000*
1933–34	36,487	3,375	2,845	65,000*
1934–35	40,018	3,411	3,234	70,000*
1935–36	41,203	3,441	4,249	80,000*

* Estimated.

The final column includes acreages under minor crops, orchards, green manures and bare fallows.

The 1935-6 season was characterized by the lateness of the first rains and a series of prolonged droughts. By the end of February maize crops were in a critical condition, but the end of season rains, which were copious and well-distributed, turned what appeared to be certain failure into the most abundant harvest ever recorded. The late rains, however, adversely affected all but the earliest toba curings and favoured the spread of rust in winter-sown wh

Statistics of maize production from 1929 onwards are summarized in the following table:—

Year ending 31st December.	*Area in thousands of acres.*	*Average yield in bags per acre.*	*Yield in thousands of bags.*	*Farm consumption in thousands of bags.*	*Surplus available for sale in thousands of bags.*
1929	39	5·1	202	33	169
1930	47	4·3	202	37	165
1931	43	4·5	194	33	161
1932	43	6·9	296	46	250
1933	34	3·6	122	31	91
1934	36	6·9	251	38	213
1935	40	4·0	160	28	132
1936	41	8·0	329	55	274

The Maize Control Ordinance came into operation on the 1st May, 1936. The Control Board had to deal with a large carry-over from the previous year in addition to a new crop of some 440,000 bags of which over 160,000 were produced by natives. Current local consumption is about 210,000 bags per annum. The Board exported 131,000 bags overseas, 58,000 bags to Southern Rhodesia by arrangement with the Southern Rhodesian Maize Control Board, and 45,000 bags to the Union of South Africa. Most opportunely the rise in the world price of maize coincided with this heavy export programme. Maize control has unquestionably proved beneficial in its first year, not least to the native producers who, for the first time, have been offered a remunerative market for the maize they cared to sell.

Wheat is grown almost exclusively as a winter crop under irrigation. Lusaka is the main producing centre. The acreage planted in 1936 was 25 per cent. greater than that of 1935, but, due mainly to rust, the yield per acre was the lowest on record.

Wheat production in recent years has been as follows:—

Year.	*Acreage.*	*Yield in bags of 200 lb.*	*Average yield per acre.*
1929	2,572	11,838	4·6
1930	2,095	9,583	4·6
1931	1,594	5,627	3·6
1932	2,261	11,373	5·0
1933	2,271	11,579	5·1
1934	2,845	12,564	4·4
1935	3,234	18,228	5·6
1936	4,249	11,121	2·6

Tobacco, the one important export crop, is grown chiefly in the Fort Jameson district. The earliest curings were of high quality but the later ones suffered badly from the abnormal late rains. Acreage was roughly the same as that of 1935 but yield was considerably reduced. The total crop was 1,275,000 lb. of cured leaf of which 1,201,000 lb. were of the Virginia flue cured type. Sales were divided almost equally between African and overseas markets.

Minor crops such as groundnuts, potatoes, sweet potatoes, and pulses are of trivial importance in comparison with maize, wheat and tobacco. Increased demand has stimulated the market-gardening industry and 1,130 tons of mixed vegetables were sold.

The territory continues to obtain the bulk of its fruit requirements from Southern Rhodesia and the Union of South Africa. Deciduous fruit trees are successful only in a few favoured localities, but citrus thrives in most places where irrigation is possible. The equivalent of about 6,000 cases of locally-produced citrus was sold.

Coffee planters had rather a bad year. Production fell from 630 cwt. in 1935 to 430 cwt.

There was no locust damage during the year.

Veterinary.

Northern Rhodesia remains free from the major diseases of stock, with the exception of contagious bovine pleuro-pneumonia, which is still enzootic in the Barotse Province. Preliminary investigational work on the behaviour of vaccine in combating this disease is in progress and, should the experiments prove successful, it is hoped to embark upon a campaign for its eradication from Barotseland in the near future.

Foot and mouth disease was finally eradicated from the territory early in 1936 and, fortunately, no recrudescence has occurred.

The usual incidence of redwater, gallsickness, heartwater and other tick-borne diseases occurred, and it is unfortunate that certain stockowners still fail to realize the value of short-interval dipping in the control of these conditions.

Trypanosomiasis is very prevalent in certain areas of the territory.

Sporadic outbreaks of anthrax, quarter evil and other bacterial diseases occur and are controlled by prophylactic inoculation.

The territory remains free from rinderpest and East Coast fever.

The incidence of parasitic worms is high, particularly in sheep.

Pigs are singularly free from disease and thrive well.

Outbreaks of fowl typhoid and fowl pox occur among poultry. Prophylactic inoculation is employed by the more progressive flock owners.

Despite the increased demand for slaughter cattle during the year, it was possible to supply all requirements from sources within the territory and no importations of slaughter stock from Southern Rhodesia or Bechuanaland were permitted.

Importation of breeding stock from Southern Rhodesia and the Union of South Africa continued throughout the year. It is unfortunate that these importations were not greater in number, as fresh blood is badly needed in the herds of the territory.

The Cattle Levy Ordinance was in operation throughout the year. This measure imposes a 3 per cent. levy upon the sales of all slaughter cattle, the proceeds of the levy to be applied to such objects for the benefit of the cattle industry of the territory as His Excellency the Governor may direct. The effects of the Ordinance are not yet apparent.

The Creamery at Lusaka continues to prosper and is well supported by farmers, to whom the monthly cream cheque is a welcome asset. Butter is still imported into the territory as the Creamery supplies are not equal to the demands of the large mining communities in the north.

Slaughter sheep are imported from the south as local supplies are insufficient. On the other hand, some difficulty is experienced in obtaining a market for all the pigs produced in the territory.

Mining.

Producing Mines.

Roan Antelope.—Underground development on the 820 level is continuing on a full production basis which has enabled the mine to meet the increased production required during the latter part of the year without difficulty.

The new shafts on each side of the syncline are below the 1420 level and can develop the ore-body at this depth as soon as required.

The copper production of both the Roan Antelope and Mufulira mines was treated in the smelter but this became difficult when production rapidly increased towards the end of the year. The total quantity of copper produced was 56,454 tons.

Nkana Mine.—At the Mindola section of the mine the main drives were developed and a large amount of sub-level work was done in preparation for stoping. From this section 25,000 tons of ore per month were railed to Nkana in the latter part of the year which was of assistance when the quota increased.

Normal development continued on the Nkana section and the main shaft was deepened.

There has been a good demand for cobalt alloy recovered from converter slag.

The electrolytic refinery worked at full capacity and two consignments of slimes therefrom, containing precious metals were shipped to Europe.

The mineral production of the mine for the year was:—

Copper in blister	28,091 tons.
Copper in cathodes	28,012 tons.
Cobalt	1,016,633 lb.
Gold	304 oz.
Silver	221,970 oz.

Mufulira.—Early in the year the construction of the plant and smelter was completed, but with the low scale of production allowed under the copper quota agreement only a portion of the plant was used. The output was not sufficient for the economic use of the smelter and the concentrates were railed to the Roan Antelope Mine for treatment. The underground development programme was based on the quota, which made it somewhat difficult to meet the sudden demand for increased production at the end of the year. The increased copper output rendered it necessary to start up the smelter to relieve the pressure on the Roan Antelope smelter. The furnace was heated in December and the slag bottom poured. The smelter will be producing copper early in January, 1937. The output for the year was 29,783 tons of copper.

Broken Hill.—The mining of zinc ore from opencast working was gradually replaced by mining these deposits underground from shallow vertical shafts.

The output of zinc and vanadium ores was maintained at the level of previous years. During the year a large amount of diamond drilling was undertaken which proved the zinc lead sulphide ore-bodies to depths of 1,000 feet. Drilling was also used to find a suitable position for a deep level pumping shaft, a favourable site being located.

With the reconstruction of the finances of the company, capital has been made available for sinking this pump shaft and for general development in depth. Work will be commenced during the coming year.

In addition to exports of zinc and vanadium a small amount of lead ore was smelted for plant requirements.

Nchanga Mine.—Towards the end of the year a company with large financial resources was floated to develop this property, and personnel from Nkana Mine overhauled the power station and supervised the reconditioning of the houses. Sites are being tested for sinking two incline shafts directly below the ore-body which will connect with the old workings that were flooded when the mine closed down. In one of these shafts it is proposed to establish a large pumping station.

Luiri Gold Areas.—Diamond drilling ceased early in the year, but prospecting was continued in the vicinity of the Dunrobin Claims. A promising reef was pegged at Chosha and is being developed by one vertical and one incline shaft. A further series of reefs was located two miles away, but at present the work is not sufficiently advanced to establish its value.

By the end of April the gas engine, mill and a portion of the cyanide plant were completed; crushing of ore from two workings on Dunrobin Claims commenced in May; and an average of 2,400 tons of ore is now being crushed per month. The total amount of gold recovered during the period from May to the end of the year by cyanide and amalgamation was 3,057 oz. The reserves of payable ore are small and the length of life of the mine is governed by the amount available at Chosha and the new reefs referred to above.

New Jessie Mine.—There has been difficulty in locating lenses of payable ore on this mine. Klipspringer No. 2 continued to be the main source of tonnage; various narrow reefs are being tested, but no lenses of any size have so far been found and it is only with difficulty that the mill has been kept supplied.

Development continues and it is to be hoped that one or more new lenses of ore may shortly be discovered. The total gold output for the year was 650 oz.

Sasare West Mine.—This small gold mine was worked intermittently and three small declarations of gold were made. Work has now ceased, but the accumulated sands are to be cyanided.

Sachenga Mine.—A small output of mica was maintained from the property.

Cassiterides.—Various patches of gravel were successfully washed on this property and concentrates were shipped. The economic areas of gravel are very scattered and no estimate of the total quantity available can be made.

Developing Mines.

Chakwenga.—The ore-bodies of this gold prospect in the Rhodesia Mineral Concession were developed above water level and satisfactory values disclosed over a short strike. During the year, boilers and machinery were transported to the mine to sink the shaft and develop the ore below water level.

Chambeshi and Kansanshi.—Neither of these mines was worked during the year.

Concessions.

Rhokana Concession.—Field parties were engaged in prospecting and mapping 1,939 square miles of this concession. In addition extensive potholing was carried out in the vicinity of Nchanga followed by some diamond drilling at Konkola.

Intensive potholing and surface prospecting was done near the Belgian Congo border in the vicinity of Prince Leopold Mine but there is no report of any disclosures of ore.

Loangwa Concessions.—Geological prospecting was mainly confined to the Abercorn District where 1,803 square miles were mapped. Various gold-bearing gravels in the concession were tested but did not prove to be of economic value. Liteta prospect south of Broken Hill, and several prospects near Lubungu were investigated but were closed on account of the poor results obtained.

Rhodesia Minerals Concession.—Five hundred and twenty-seven square miles of the concession were prospected and mapped. A gold occurrence near Chisamba and several mineral occurrences south-east of Lusaka were prospected but the work was discontinued about the middle of the year.

GENERAL.

During the year the prices of copper and zinc improved steadily, copper rising from £35 to over £50 and zinc from £14 to £20. The copper quota remained at 70 per cent. of basic production until the 1st of August when it was increased to 75 per cent. From the beginning of October further increases were made by the quota committee, a final percentage of 105 being reached on the 6th of November.

This call for rapid increase of production temporarily taxed the capacity of the mines, suitable non-native labour not being available at short notice, and there was a slight lag in producing the required tonnage until December when the amount was obtained and the shortfall of previous months made up.

VII.—COMMERCE.

The principal features of the external trade of the territory during 1936 were a fall in the value of imports and a large increase in the value of exports.

The value of merchandise imported during the year under review amounted to £2,291,953 as against £2,902,960 in 1935, a decrease of £611,007, or 21 per cent.

In addition, Government stores to the value of £43,508 and specie to the value of £14,485 were imported.

The total exports of merchandise were valued at £6,037,616 as compared with £4,778,604 in 1935, an increase of £1,259,012 or 26 per cent. In addition, specie to the value of £7,521 was exported.

The lower value of imports was mainly due to the cessation of the importation of machinery and metal manufactures previously used in development work on the mines. This is reflected in the value of imports recorded under Class V (metals, metal manufactures, machinery and vehicles) which were valued at £680,278 as against £1,210,149 in 1935: 87 per cent. of the fall in the value of imports occurred in this class. Most of the more important of the imports classed as normal " consumption " articles also showed a decrease during the year.

The British Empire supplied 78 per cent. in value of the total imports of merchandise during 1936 as compared with 75 per cent., 77 per cent., 75 per cent. and 79 per cent. during the years 1932 to 1935. The United Kingdom was again the main country of supply, with 35 per cent. of the total imports, and United States of America was the largest non-Empire supplier with 10 per cent.

Metals constituted 95 per cent. of the total value of domestic exports, copper alone representing 84 per cent. The increase in the value of exports resulted mainly from the receipt of higher prices for copper. The principal purchasers of domestic exports were the United Kingdom (53 per cent.) and Germany (23 per cent.).

The trade balance was in favour of exports to the extent of £3,745,663 whereas in 1935 it was £1,875,644.

The following figures show the value of imports and exports and re-exports of merchandise during the past 10 years:—

Year.	*Imports.* £	*Exports and Re-exports.* £
1927	1,957,138	755,525
1928	2,366,317	847,068
1929	3,602,417	899,736
1930	4,862,722	885,976
1931	5,140,548	1,178,515
1932	1,864,902	2,675,248
1933	1,931,829	3,715,396
1934	2,884,506	4,530,933
1935	2,902,960	4,778,604
1936	2,291,953	6,037,616

Imports.

The following summary furnishes a comparison of the value of merchandise imported during the years 1933 to 1936 which originated from Empire and from foreign countries:—

Imports from.	1933. £	1934. £	1935. £	1936. £
Union of South Africa	404,540	448,629	410,140	377,096
Southern Rhodesia	346,261	422,574	449,673	492,557
United Kingdom and other Empire countries	732,072	1,299,686	1,444,298	917,595
Total British Empire	1,482,873	2,170,889	2,304,111	1,787,248
Foreign countries	448,956	713,617	598,849	504,705
Total merchandise	£1,931,829	£2,884,506	£2,902,960	£2,291,953

For the purpose of illustrating the routes of import trade, the following table shows the value of merchandise from the

Union of South Africa and Southern Rhodesia and directly from overseas during the years 1933 to 1936:—

Imports from.	1933.	1934.	1935.	1936.
	£	£	£	£
Union of South Africa	502,643	626,520	552,485	546,720
Southern Rhodesia	857,248	1,040,278	1,085,314	1,025,783
Overseas (direct)	571,938	1,217,708	1,265,161	719,450
	£1,931,829	£2,884,506	£2,902,960	£2,291,953

The following table gives the values of the principal classes of imports during the years 1932 to 1936:—

Class.	*1932.*	*1933.*	*1934.*	*1935.*	*1936.*
	£	£	£	£	£
Animals (living)	29,036	367	13,845	9,015	11,697
Foodstuffs, etc.	262,221	197,810	229,444	218,662	193,200
Ales, spirits and wines, etc. (potable).	84,485	74,475	88,052	93,306	83,805
Spirits (non-potable) ...	1,523	1,400	1,928	1,846	1,642
Tobacco manufactures ...	61,622	53,432	62,071	63,393	58,473
Textiles, apparel, yarns and fibres.	319,835	308,423	350,353	411,109	370,825
Metals, metal manufactures, machinery and vehicles.	391,531	486,546	1,187,340	1,210,149	680,278
Minerals, earthenware, glassware and cement.	132,251	176,292	247,218	253,649	236,622
Oils, waxes, resins, paints and varnishes.	142,811	126,318	137,597	140,151	144,982
Drugs, chemicals and fertilizers.	52,828	64,175	85,588	76,614	72,133
Leather and rubber, and manufactures thereof.	57,032	58,854	78,403	64,575	63,031
Wood, cane, wicker, and manufactures thereof.	51,493	48,092	71,749	48,009	53,927
Books, paper and stationery.	36,260	34,805	38,546	44,300	40,497
Jewellery, time - pieces, fancy goods, etc.	29,778	25,419	28,310	32,773	26,387
Miscellaneous	212,196	275,421	264,062	235,409	254,454
Total Merchandise ...	£1,864,902	1,931,829	2,884,506	2,902,960	2,291,953

Exports.

The following table shows the values of exports and re-exports during the years 1933 to 1936.

	1933.	1934.	1935.	1936.
	£	£	£	£
Exports	3,588,609	4,399,990	4,671,895	5,936,692
Re-exports	126,787	130,943	106,709	100,924
Total merchandise ...	3,715,396	4,530,933	4,778,604	6,037,616
Specie	31,958	9,462	23,959	7,521
Grand Total	£3,747,354	£4,540,395	£4,802,563	£6,045,137

In the following table a comparison is given between the values of exports and re-exports to the Union of South Africa, Southern Rhodesia, the United Kingdom and other Empire Countries and to foreign countries during the years 1933 to 1936.

Exports.	1933.	1934.	1935.	1936.
	£	£	£	£
To Union of South Africa ...	60,325	69,580	162,300	294,217
To Southern Rhodesia ...	18,766	20,210	26,768	53,294
To United Kingdom and other Empire countries	1,179,719	1,947,989	2,470,154	3,208,822
To Foreign countries	2,329,799	2,362,211	2,012,673	2,380,359
Total exports	£3,588,609	£4,399,990	£4,671,895	£5,936,692

Re-exports.	1933.	1934.	1935.	1936.
	£	£	£	£
To Union of South Africa ...	30,896	37,870	27,474	29,170
To Southern Rhodesia ...	68,480	63,879	66,772	61,905
To United Kingdom and other Empire countries	14,941	19,211	1,693	2,469
To Foreign countries	12,470	9,983	10,770	7,380
Total re-exports	£126,787	£130,943	£106,709	£100,924

The values of the principal articles exported during the years 1932 to 1936 are given below:—

Article.	*1932.*	*1933.*	*1934.*	*1935.*	*1936.*
	£	£	£	£	£
Copper	2,087,620	3,114,618	3,705,783	3,976,504	4,994,716
Cobalt	—	39,008	191,755	132,646	152,056
Zinc...	1,088	275,834	330,454	295,092	334,621
Vanadium	197,018	19,638	37,224	81,395	125,571
Gold	41,277	6,833	6,351	10,057*	22,962*
Tobacco (leaf) ...	39,209	35,196	41,669	43,220	37,658
Wood (unmanufactured).	9,622	11,626	20,891	25,931	31,425
Wood (manufactured).	23,414	46,829	42,215	78,712	111,203
Hides and skins ...	8,386	8,314	9,946	10,613	16,493

* Value calculated at prices ruling at time of export.

VIII.—WAGES AND COST OF LIVING.

The number of natives employed within the territory increased from 66,700 in December, 1935, to 77,300 in December, 1936. Wages showed little variation, but tended to rise slightly in the farming industry.

The average monthly wage for underground labour on the big copper mines is 31s. 6d., and for surface labour 18s. In the farming industry the average wage for casual labour is 7s. 6d., rising to 10s. and, in some cases, 12s. 6d. The average wage paid to domestic servants varies from 5s. per month for kitchen helps to 50s. per month for cooks. The average all round wage is from 17s. 6d. to 20s. In addition to the wages stated above, native labour is provided with housing and food. The value of the latter varies from 3s. in rural areas to 15s. for highly paid labour in urban areas.

An average of 18,326 natives was employed in the mining industry against 17,381 during 1935; 9,154 in agriculture against 10,029 the previous year; and 10,142 in domestic service against 14,433.

Recruiting for Southern Rhodesia, and particularly for the Rhodesia Railways, was started during the year, and 51,212 natives were reported to be in employment outside the territory at the end of the year compared with 49,030 at the end of 1935. The exodus to work appears to have been greater in 1936 than in any previous year.

The cost of living for Europeans is governed mainly by the cost of transport. Transport charges, even in the case of places on the railway, add considerably to the price of commodities. When transport by motor or other means is necessary, as it is in the case of places off the line of rail, the average price is still further increased.

The average price of various commodities on the line of rail is as follows:—

	Average. s.	*Average.* d.
Bread, per lb. loaf		8
Local flour (1st grade), per lb.		4
Patna rice, per lb.		4
Mazawattee tea, per lb.	3	0
Sugar (white granulated), per lb.		4
Coffee (average, loose and tinned), per lb.	1	10
Butter, per lb.	2	0
Bacon, per lb.	2	0
Eggs (European farms), per doz.	2	0
Milk, per pint		4
Beef, per lb.		9
Soap (Sunlight), per packet	1	6
Kerosene, tin of 4 gallons	10	0
Motor spirit (Shell), per gallon	3	0

The cost of clothing is from 30 to 50 per cent. higher than European prices.

Income tax on individuals is charged as follows:—

For every—

	s.	d.
£1 of the first £100 of chargeable income		6
£1 of the next £100 of chargeable income	1	0
£1 of the next £100 of chargeable income	1	6
£1 of the next £100 of chargeable income	2	0
£1 of the next £100 of chargeable income	2	6
£1 in excess of £500 of chargeable income	3	0

The following deductions are allowed:—personal, £300; for a wife, £420; for children, £100 each; for a dependant the amount expended, not exceeding £100; for life insurance premiums paid, not exceeding one-sixth of the income remaining after deducting the personal deduction.

An individual who is a non-resident and not a British subject is eligible for the personal deduction of £300 only. Company income tax is at the rate of four shillings in the pound. Relief is allowed in respect of United Kingdom and Empire income tax.

IX.—EDUCATION AND WELFARE INSTITUTIONS.

For the education of European children there were, in 1936, controlled schools at Livingstone, Choma, Mazabuka, Lusaka, Broken Hill, Ndola, Luanshya, Nkana and Mufulira, offering primary education up to Standard VII, with the additional subjects, Latin, French, Algebra, Geometry and Science in Standards VI and VII. There were controlled schools at Mulendema and Silver Rest offering primary education up to Standard V. All these schools were under Government management, the tuition fees varying from 7s. 6d. to £1 17s. 6d. per quarter.

The Convent School, Broken Hill, offering education up to the standard of the South African Matriculation Certificate Examination, the Convent School, Ndola (Kindergarten and Commercial), Mrs. Jeffrey's School, Fort Jameson, Mountfield School, Fort Jameson and Mulobesi School were controlled schools but under private management. The last three offered primary education up to Standard V.

During the year a number of small uncontrolled schools also remained open.

Boarding accommodation was available for girls at the Beit School, Choma, and for boys at the Codrington School, Mazabuka, the boarding fees being £12 10s. per quarter in each case; and for boys and girls at Lusaka School, the boarding fees being £9 per quarter. All three of these schools were under Government management. The Convent School, Broken Hill, under private management, also provided boarding accommodation.

Forty-nine teachers were employed in the controlled schools under Government management, the enrolment at the end of 1936 being 854. In the middle of the last quarter of the year, however, the enrolment was 926, the decrease at the end of the year being due to epidemics and departures on holiday. At the same time, 133 children were attending controlled schools under private management and 54 were receiving education through the Southern Rhodesia correspondence classes.

Education for natives in Northern Rhodesia is still mainly provided through the agency of mission societies. These, however, receive financial support from Government and professional guidance from the inspecting officers of the Native Education Department.

Sixteen of the missionary societies operating in the country maintain village elementary schools, boys and girls boarding schools, and teacher-training institutions recognized as eligible for Government grants. A total sum of £14,340 was directly distributed amongst them in recurrent grants in 1936. This amount included a grant of £250 from the Carnegie Corporation and £1,800 from the Barotse Trust Fund, the latter being distributed among the societies carrying on educational work in Barotseland.

*Recurrent expenditure on Native Education during the year 1936 amounted to:—

	£
From Government revenue	23,649
Beit Railway Trust	250
Carnegie Corporation	750
Barotse Trust Fund	4,710
	£29,359

Since the year 1929 the sum of £13,800, generously granted by the Beit Railway Trustees, has been spent on building and equipping the Jeanes, normal, and elementary schools at Mazabuka. In connexion with the establishment of the Native Trades School at Lusaka, buildings were erected between 1932 and 1934 by means of appropriations from Loan Funds.

Owing to the growth of an inspectorate during the past few years, it is becoming possible to carry out more frequent inspections and to ensure that the moneys paid by Government are being utilized satisfactorily and that a steady improvement in the standard of education is being maintained.

Eighty-three African teachers passed the written part of the Government examinations during the year. There are now 670 natives who have passed the written section of the examination and 470 who have been given certificates after inspection of their practical work.

Annual returns show that the Government and mission societies employed on 31st December, 1935, some 1,900 teachers in 1,900 schools and " ungraded " schools. The majority of these teachers must still be classed as catechists or evangelists in charge of so-called " bush " schools and have never had an adequate course of professional training.

Approximately 500 certificated teachers were in the service of missions at the end of the year and qualified for Government grants-in-aid.

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* Estimated.

One hundred and forty-seven European teachers and technical instructors were engaged in Native education during the year.

Fifteen Europeans and forty-two African teachers and instructors, including the staff of the Barotse National School, comprised the staff of the Native Education Department.

Returns, which must be regarded as approximate, show that 18,908 boys and 8,150 girls attended recognized schools, while roughly 83,000 children attended " ungraded " schools. It is estimated that there are about 300,000 children of school age in Northern Rhodesia.

The foregoing figures give some idea of the magnitude of the task to which Government and missions are devoting themselves. The Jeanes Training School, established by Government at Mazabuka, is an important and effective agent in the work. At present there are twenty selected mission teachers being trained as Jeanes teachers. Their wives also receive training in hygiene, child welfare, and other domestic subjects.

At Mbereshi (London Missionary Society), women teachers are being trained along Jeanes lines. A grant of £500 per year is given towards the cost of their training, half being borne by Government and half by the Carnegie Corporation. There are twenty girls' boarding schools subsidized by Government, with an enrolment of approximately 800 pupils. Domestic and vocational training is an important feature of the curricula of these girls' schools.

Boys receive training as carpenters, masons, and bricklayers at the Barotse National School, at Mbereshi, and to a lesser degree at several other mission stations. The Government trades school for the training of carpenters, masons, and bricklayers at Lusaka has fifty-four apprentices in training.

Government has also established an elementary school for boys at Mazabuka and middle schools at Ndola and Kasama. The Government Normal School at Mazabuka trains teachers for Government requirements and for the smaller missions which have no training schools of their own.

The proportion of recurrent expenditure (including grants from Trust Funds) on Native education to the total expenditure was at the rate of approximately 3·9 per cent.; the amount spent per head of native population on Native education was approximately 4.8d. but it must be borne in mind that much the greater part of Native education is carried out by the various missions, and it is impossible to compute with any accuracy what their educational services represent in terms of monetary expenditure. If it were possible to arrive at such a sum, the figure given above would be very largely increased.

X.—COMMUNICATIONS AND TRANSPORT.

Railways.

The railway from Southern Rhodesia via the Victoria Falls to the Belgian Congo passes through North-Western Rhodesia and branch lines serving the Roan Antelope, Nkana, and Mufulira copper mines radiate from the main line at Ndola. Three through passenger trains, on which dining-cars and sleeping accommodation are available, run weekly in each direction over the main line. In addition, local mixed trains with second-class and native accommodation run daily in each direction between Livingstone and Ndola. No dining-cars are attached to these latter trains, but stops are made at convenient places sufficiently long to allow of passengers taking a meal at the local hotel. In addition to these a regular goods train service is in operation for the conveyance of goods and mineral traffic, and loads of 1,300 tons in the northward direction are regularly obtained over long sections by these latter trains.

River Transport.

Transport to stations in the Barotse valley is by barge along the Zambesi river, but for rapid transport light aeroplanes are now being used to Mongu, where there is a Government aerodrome. There is no sleeping accommodation on the barges, which are made fast to the river bank for the night whilst travellers camp on shore. The journey up the Zambesi from Livingstone to Mongu by barge takes from twelve days to three weeks: by air it is effected in three hours.

Roads.

The roads of the territory are of earth with the exception of the portion of the Great North Road which runs from the Victoria Falls to Livingstone—a distance of some eight miles—and a stretch of two miles in Lusaka, which are bitumen-surfaced.

The arterial road system consists of three main routes, viz., the Great North Road from Livingstone, which runs adjacent to the railway as far as Kapiri Mposhi (460 miles) where it turns north-east to Abercorn and Mpulungu on Lake Tanganyika, a total distance of 982 miles. The principal towns and Government stations on this route are Kalomo, Choma, Mazabuka, Lusaka, Broken Hill, Mpika, Kasama and Abercorn. At Mpulungu the lake steamer connects with Kigoma on the Tanganyika Railway.

The Congo Border Road branches off from the Great North Road at Kapiri Mposhi and traverses the Copper Belt, Bwana Mkubwa, Ndola, Nkana, Nchanga and Solwezi being the principal towns through which it passes. From Solwezi the road turns southward and passing through Kasempa and Mumbwa joins the Great North Road again 45 miles south of Broken Hill. The length of the Congo Border Road is 650 miles.

The Great East Road leaves the Great North Road at Lusaka and proceeds to Fort Jameson and the Nyasaland border, where it connects up with the Nyasaland road system. The distance to Fort Jameson is 392 miles and this town is twelve miles from the Nyasaland border.

In addition to the main routes mentioned above, there are 4,950 miles of secondary roads which connect settled areas and Government stations throughout the greater part of the territory.

The roads generally are passable for traffic during nine months of the year, but during the rainy season, from December to April, the traffic is restricted to 7,000 lb. gross loading on some roads and 5,000 lb. on others.

The arterial roads have, with the exception of the Congo Border Road, been bridged and culverted with permanent structures.

On other roads, waterways, etc., are crossed by bush timber bridges. A number of pontoons are provided at other major river crossings, for the use of which the Government charges a moderate fee.

Travellers can be accommodated at hotels and rest-houses at suitable points on all the arterial road systems.

The reconstruction programme mentioned in the Report for 1935 was continued. A further 250 miles were reconstructed, making 720 miles in all. Grader maintenance of these sections was started during the year, with plant purchased from Colonial Development Loan funds.

The tractors were British made, of a new type with Diesel engines using crude oil.

The earth road reconstruction programme in the copper mining area was continued. By the completion of the bridges already described in the Report for 1935 and of 30 miles of formed, cambered, and graded earth road, travelling conditions between Ndola, Nkana and Luanshya have been considerably improved. Work was in progress on a new road between Nkana and Mufulira at the end of the year.

Postal.

The volume of correspondence and parcels dealt with was smaller than in 1935. The total number of items dealt with during the three years 1934, 1935 and 1936 was as follows:—

	1934.	1935.	1936.
Posted—Inland	1,403,472	1,736,982	1,563,736
External	1,302,802	1,776,580	1,280,766
Received—External	2,667,356	3,427,164	2,777,788
	5,373,630	6,940,726	5,622,290

Revenue from the sale of stamps fell from £22,976 in 1935 to £20,269 in 1936. The decrease is accounted for partly by the fall in the number of postal articles dealt with during the year and partly by sales to philatelists during 1935 of the special Silver Jubilee issue of stamps.

Postal-orders and money-orders were issued during 1935 to the value of £91,919 and during 1936 to the value of £91,426.

Postal-orders and money-orders were paid during 1935 to the value of £37,005 and during 1936 to the value of £42,636.

The number of cash-on-delivery parcels dealt with rose to 11,894 representing an increase of 13·9 per cent. as compared with 1935. Trade charges collected during 1936 amounted to £22,088, being an increase of £1,496, or 7·26 per cent. as compared with the previous year.

Telegraphs.

The main telegraph and telephone trunk route runs beside the railway from the Victoria Falls Bridge to the Congo Border, with branches from Ndola to Luanshya (Roan Antelope Mine) and Ndola to Nkana and thence to Mufulira. Fort Jameson is connected with the Nyasaland system and Kasama and Abercorn with the Tanganyika system.

Both the volume of traffic and the net telegraph revenue for the year were slightly lower than in 1935.

	1934.	1935.	1936.
Paid telegrams	51,595	50,964	45,088
Official telegrams	14,958	16,457	16,256
Net revenue	£8,329	£8,229	£7,593

Telephones.

Exchanges.—Government automatic exchanges are in operation at Broken Hill, Livingstone, Luanshya, Lusaka, Mazabuka and Ndola. Private licensed automatic exchanges are established at the Roan Antelope Mine (Luanshya), the Mufulira Mine and Nkana.

Trunk call offices open for public service are established at all post offices on the line of rail and licensed exchanges have facilities for trunk intercommunication.

Telephone Revenue.

	1934.	1935.	1936.
	£	£	£
Exchange rentals	3,666	3,841	4,326
Call office and trunk fees	3,249	3,629	3,758
Miscellaneous	118	121	151
Total	£7,033	£7,591	£8,235

Wireless.

(*a*) *Aeronautical Services.*—Aeronautical wireless stations have been installed at Mpika and Broken Hill for radio-communication services principally in connexion with the Imperial Airways England—South Africa Air Route. Both are equipped for point-to-point communication by means of short-wave emissions and for communication with aircraft in flight, on a wave-length of 900 metres.

(*b*) *Internal and International Services.*—In addition to aeronautical radio-communication services, Broken Hill and Mpika maintain a public service, as Mpika is otherwise isolated. Short-wave stations have been installed at Abercorn, Livingstone, Mongu, and Fort Jameson.

International communication is maintained by Broken Hill with the territories of Tanganyika, Southern Rhodesia, and the Union of South Africa.

Revenue is included in telegraph revenue.

Civil Aviation.

The following air routes have been established in Northern Rhodesia and pilots of all aircraft, especially single-engined aircraft, are advised in the interests of safety to follow these routes when flying between the places mentioned:—

(1) *Livingstone to Balovale* (or intermediate stations) via Sesheke, Njoko, Sioma, Senanga, and Mongu.

(2) *Livingstone to Ndola* (or intermediate stations) via Kalomo, Choma, Mazabuka, Lusaka, Chisamba, Broken Hill and Kapiri Mposhi.

(3) *Lusaka to Fort Jameson* via Nyangwena, Rufunsa, Beit Bridge, Nyimba and Sasare.

(4) *Broken Hill to Mbeya* (or intermediate stations) via Mtuga, Ndabala, Kanona (for Serenje) Kalonje, Mpika, Shiwa Ngandu, Chinsali, Isoka and Mwenimpanza.

(5) *Broken Hill to Abercorn* via Mtuga, Ndabala, Kanona, Kalonje, Mpika, Kasama and Rosa.

(6) *Ndola to Mbeya* (or intermediate stations) via Kapiri Mposhi, Mtuga, Ndabala, Kanona, Kalonje, Mpika, Shiwa Ngandu, Chinsali, Isoka and Mwenimpanza.

(7) *Ndola to Abercorn* via Kapiri Mposhi, Mtuga, Ndabala, Kanona, Kalonje, Mipika, Kasama and Rosa.

(8) *Abercorn to any line of rail station,* via Rosa, Kasama, Mpika, Kalonje, Kanona, Ndabala, Mtuga, Broken Hill and then to the required destination via the railway line.

(9) *Lusaka—Matala—Mumbwa,* Broken Hill—Matala—Mumbwa. Mazabuka—Matala—Mumbwa.

Aerodromes and landing grounds are maintained in good condition in the more settled areas, but it is not always possible to maintain distant emergency landing grounds to the same extent, although every endeavour is made to do so.

Airways.

The service of Imperial Airways operated with regularity throughout the year.

The French air service between Madagascar, Broken Hill and Elizabethville, Belgian Congo, also operated with regularity. At Elizabethville this service links up with the Belgian service to Europe. The machines of this service arrive at Broken Hill from Madagascar every Thursday morning and proceed to Elizabethville the same day. They return to Broken Hill the following day and then proceed on the return journey to Madagascar.

The Rhodesian and Nyasaland Airways Limited have a machine permanently stationed at Lusaka under charter to the Northern Rhodesia Government.

The Flying Club (founded in May, 1935) has its headquarters at Lusaka, and branches are maintained at Livingstone, Broken Hill, Matala Mine and Nkana. The club possesses two aircraft, a Hornet Moth and a Gypsy Moth.

XI.—BANKING, CURRENCY AND WEIGHTS AND MEASURES.

The Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial and Overseas) operate in the territory, with branches or agencies at the more important centres. The total deposits at those banks at 31st December, 1936, amounted to £902,212, as compared with £890,073 at the end of the previous year.

The Post Office Savings Bank deposits amounted to £33,575 at 31st December, 1936, as compared with £30,131 at the end of the previous year.

There is no Land or Agricultural Bank in the territory.

The Bank Notes and Coinage Ordinance, 1931, Bank Notes and Coinage (Amendment) Ordinance, 1934, and Proclamation No. 1 of 1935 prescribe as legal tender throughout the territory (*a*) Bank of England notes, (*b*) bank-notes issued by the Standard Bank of South Africa Limited and Barclays Bank (Dominion, Colonial and Overseas) at their offices at Salisbury, Southern Rhodesia, (*c*) the standard coinage in use in England, (*d*) silver coinage of Southern Rhodesia for any amount not exceeding £2 sterling value and (*e*) cupro-nickel coinage of Southern Rhodesia for any amount not exceeding one shilling in value. The enactment of the first Ordinance on the 12th October, 1931, marked the departure of Northern Rhodesia from the gold standard of currency.

The English standards of weights and measures are in force.

XII.—PUBLIC WORKS.

The following buildings were completed during the year.

1. The north wing of the Terminal Building at Lusaka air port. The design was prepared by Mr. Graham Dawbarn, M.A., F.R.I.B.A. of Messrs. Norman Muntz & Dawbarn of London, and the cost was met by a grant from the Beit Railway Trust.

2. The Provincial Commissioner's House at Fort Jameson was completed as a single story structure on the foundations of the old two story building.

3. A small cottage was erected by contract to accommodate a police constable at Luanshya.

4. A wood and iron customs shed and office were erected near the Railway Station at Lusaka.

5. Further additions were carried out to Government House, and the Executive Counsellors' houses at Lusaka. These were mostly in the nature of improvements to the main structures, and additional mosquito proofing found by experience to be necessary.

Other Public Works.

1. *Copper Belt Bridges.*—Two bridges of 25 ft. span, and one 6 ft. diameter culvert were constructed on the new cross road connecting Nkana with the Ndola-Mufulira Road.

The abutments are constructed in reinforced concrete and a slab deck of the same material is carried by rolled steel joists.

2. *Nyimba Bridge.*—A new bridge with three 30 ft. openings was constructed over the Nyimba River, on the Lusaka-Fort Jameson Road in the vicinity of that washed away in 1934. The piers are built-up steel trestles cased in concrete, and the abutments of reinforced concrete, all on rock foundations. The decking consists of steel troughing salved from the old bridge filled with concrete, and so shaped as to offer as little resistance as possible to exceptional floods which may be expected to top the structure.

3. *Maramba Bridge.*—This bridge was rebuilt so as to raise it above flood level, and to enable it to carry the heavier traffic now using this road.

The former structure consisted of ten 15 ft. spans of rails, carried on trestles built up of the same material. The new bridge consists of two 30 ft. spans carried on rolled steel joists, and six 15 ft. spans with rail bearers, all on concrete piers encasing the old steel trestles.

4. *Lusaka Aerodrome drainage.*—10,000 ft. of tile drain were laid in the more low lying portions of the flying area, with the intention of raising it as closely to an all weather standard as may be possible without the construction of paved run ways.

5. *Ndola Hospital drains.*—The existing septic tank and sullage systems were connected by a drain about 7,000 ft. long to a small settling tank, and contact bed designed to treat the mixture of sullage and tank effluent to a sufficient extent to permit of discharge into an adjacent swamp.

XIII.—JUSTICE, POLICE AND PRISONS.

Justice.

Justice is administered by the High Court of Northern Rhodesia and by the Magistrates' Courts, subject to appeal to and review by the High Court.

During the year the High Court dealt with 139 civil matters as against 146 in the preceding year, and heard 18 actions and three appeals. Six petitions in bankruptcy were presented. Sessions were held during the year at points along the line of railway in March and October-November. Sixty-two criminal cases came before the Court, exclusive of reviews of judgments in the lower Courts; these latter numbered 473 of which 411 convictions involving one or more persons were approved, 41 quashed, 20 altered, and the remaining one case was referred to the High Court on a point of law.

Native Courts.

A new Native Courts Ordinance has been passed, which will apply to the whole of the territory, except Barotseland, when it comes into force. For the latter Province, a Barotse Native Courts Ordinance is now in force.

The new Native Courts Ordinance is more detailed than the former one, and deals with many matters which were previously provided for by rules. Like the Native Authority Ordinance, it emphasises that everything shall be done in accordance with native law and custom. The Courts must be constituted in accordance with native law and custom, and are then recognized by the Governor, who lays down their powers and jurisdiction by Warrant. Provision is also made for the institution of Native Court prisons and for Native Courts of Appeal, as well as appeals to the Courts of District Officers and the High Court.

The Barotse Native Courts Ordinance is similar, and was enacted in accordance with an agreement entered into between the Crown and the Paramount Chief. The construction and jurisdiction of the Courts is as laid down in the agreement. In criminal cases there is an appeal to the Provincial Commissioner from the Native Court of Appeal, but in civil cases the appeal lies to the High Court only.

The general conduct of Native Courts continues to be satisfactory.

Excluding the Barotse Province, 6,522 criminal cases were heard during the year by Native Courts, and 7,081 civil cases.

Police.

Police prosecuted a total number of 11,123 cases during the year 1936. This shows an increase of 1,773 cases on the figures for 1935. There was an increase of 43 convictions against Europeans under the Penal Code and an increase of 156 convictions under the local laws. Convictions against natives under the Penal Code showed a decrease of 161 and under the local laws an increase of 19. The following is a list of persons convicted of the more serious offences during 1936.

Crime.	*Europeans.*	*Natives.*	*Totals.*	
			1936	1935.
Affray	1	54	55	51
Arson	—	15	15	9
Assault, common	23	128	151	166
Assault, O.A.B.H.	14	161	175	144
Assault on police	1	16	17	12
Burglary	—	134	134	96
Extortion	—	2	2	—
Forgery	12	20	32	28
Fraud	22	1	23	7
Housebreaking	2	152	154	156
Indecent assault	—	8	8	11
Indecent curiosity	—	4	4	3
Manslaughter	1	12	13	19
Murder	—	18	18	26
Attempted murder	—	8	8	7
Obtaining goods by false pretences	1	7	8	12
Perjury	—	2	2	4
Rape and attempted rape ...	—	18	18	12
Receiving	—	41	41	49
Robbery	—	5	5	8
Theft, all forms	25	986	1,011	942
Unlawful wounding	—	20	20	8
Uttering	12	14	26	25

The foregoing figures include only those cases taken to court by the police and do not include cases heard by a Magistrate at stations where the police are not posted.

Prisons.

There are six central prisons in the territory, situated at Livingstone, Broken Hill, Kasama, Mongu, Fort Jameson and

Lusaka. In addition to the central prisons there are also 28 local prisons situated at each of the other Government stations.

Committals to all prisons during the year were as follows:—

Livingstone	239
Broken Hill	560
Fort Jameson	180
Kasama	70
Mongu	363
Lusaka	219
All local prisons	6,202
Total	7,833

The daily average of prisoners for all prisons was 974.

The daily average of sick was 39.

There were six executions during the year as against seven in 1935.

There were 18 deaths from natural causes.

XIV.—LEGISLATION.

During the year under review, Sessions of the Legislative Council were held in May and October-November. Thirty Ordinances were enacted, of which nineteen were amendments to the existing law.

The more important Ordinances are:—

The Post Office Savings Bank (No. 6 of 1936).
The Native Authority (No. 9 of 1936).
The Native Courts (No. 10 of 1936).
The Townships (Amendment) (No. 12 of 1936).
The Tobacco Marketing and Levy (No. 13 of 1936).
The Barotse Native Authority (No. 25 of 1936).
The Barotse Native Courts (No. 26 of 1936).

The Post Office Savings Bank Ordinance is the result of investigations by a Committee appointed by the Secretary of State for the Colonies to examine the Government Savings Banks systems in the Colonies. The report of the Committee *inter alia* stressed the following points which were not dealt with in the existing legislation of this territory:

(*a*) That savings bank accounts should be kept distinct from the accounts of any Government department.

(*b*) That all expenses incurred on savings bank business should be charged against savings bank funds.

(*c*) That savings bank accounts should be laid annually before the Legislature.

(*d*) That the proportion of surplus funds invested in local securities should not exceed one-third.

(*e*) That the relations between savings bank funds and the public revenues should be such as to preserve a reasonable balance between the immediate interests of the taxpayer and his ultimate liability for the security of the bank's financial position.

The Ordinance was passed to give effect to these recommendations.

The Native Authority Ordinance re-enacted the existing law with certain amendments, the principal of which are:—

(1) " Appointment " of Native Authorities is altered to " recognition ", following the principle of constitution in accordance with native law and custom.

(2) The sections of the existing law dealing with the appointment, tenure of office and dismissal of chiefs were deleted: no such appointments had been made since the existing law was enacted and it was considered that such matters are better regulated by native law and custom. Power is retained for the Governor-in-Council to direct an enquiry as to chieftainship in any case of doubt.

(3) The power of a Native Authority to issue orders to be obeyed by natives within the local limits of its jurisdiction is made subject to the general or special directions of the Governor.

(4) Power is given to establish Native Treasuries for the area under the control of any Native Authority. As yet Native Authorities have not handled public moneys: the time is considered ripe for these bodies to have powers of levying certain rates, dues and fees and to gain experience in managing their own financial affairs. Control is vested in the Governor.

(5) Power is given to the Governor to except any native or class of natives from the jurisdiction of any Native Authority.

The Native Courts Ordinance replaces the short enabling Ordinance of seven sections which was enacted in 1929 to initiate the system of native courts in the territory. Experience of its working revealed certain defects especially as regards the provisions for appeals and it was considered desirable to enact a more comprehensive law. Provision is now made for the recognition of native courts by warrant under the hand of the Governor, or under the hand of a Provincial Commissioner if he is so authorized by the Governor. Courts are to be " recognized ", and not " appointed " as in the existing law, following the principle of constitution in accordance with native law and custom. The jurisdiction of each court will be defined in its warrant, and not in rules of court as formerly. Practice procedure is to be regulated in accordance with native law and custom, and appeals will lie first to the Native Court of Appeal, thence to a Magistrate's Court and finally to the High Court.

The Townships (Amendment) Ordinance adds to the principal Ordinance a Part, on the lines of Parts V and VI of the Municipal Corporations Ordinance, providing for the election of members of Township Management Boards which can be applied to any township, the advanced growth of which renders desirable an elected Management Board.

The Tobacco Marketing and Levy Ordinance implements an agreement between the tobacco producers of Southern Rhodesia, Nyasaland and this territory to restrict the export of tobacco to the United Kingdom to the visible or reasonably anticipated demand. Provision is also made for the allocation between growers of the Union of South Africa quota, and, if so desired by the majority of growers, for the imposition of a levy not exceeding sixpence per hundred pounds to be utilized for the benefit of the tobacco growing industry.

The Barotse Native Authority Ordinance provides for the recognition of the Native Authorities in the Barotse Province, which was excluded from the provisions of Ordinance No. 9 of 1936, and is identical with that measure, save that, in accordance with the terms of certain treaties and agreements, the powers reserved to the Paramount Chief are more extensive than those which have been conferred on chiefs in other parts of the territory.

The Barotse Native Courts Ordinance provides for the recognition and regulates the procedure of native courts in the Barotse Province and is identical with the Native Courts Ordinance, 1936, which excluded the Barotse Province from its operation, save that more extensive powers are reserved to the Paramount Chief.

XV.—PUBLIC FINANCE AND TAXATION.

The revenue and expenditure for the past nine years have been:—

		Expenditure.		*Total*
Year.	*Revenue.*	*Recurrent.*	*Extraordinary.*	*Expenditure.*
	£	£	£	£
1928-29	541,606	496,399	28,769	525,168
1929-30	672,289	532,367	22,160	554,527
1930-31	830,254	668,083	36,903	704,986
1931-32	856,376	793,798	26,258	820,056
1932	649,538	777,290	13,216	790,506
1933	718,283	773,985	4,894	778,879
1934	693,337	710,774	2,129	712,903
1935	833,484	780,930	25,499	806,429
1936	863,255	836,174	51,243	887,417

These figures exclude repayments to the Imperial Exchequer of grants-in-aid received in 1924-5 and 1925-6, and the loan of £240,000 received from the Colonial Development Fund and lent to the Rhokana Corporation in 1934.

Loan expenditure on capital development amounted to:—

£566,801 at 31st March, 1931.
£1,216,681 at 31st March, 1932.
£1,475,130 at 31st December, 1932.
£1,821,123 at 31st December, 1933.
£1,991,387 at 31st December, 1934.
£2,159,826 at 31st December, 1935.
£2,190,402 at 31st December, 1936.

The public debt consists of £1,250,000 5 per cent. inscribed stock 1950-70 issued in 1932 and £1,097,000 3½ per cent. inscribed stock 1955-65 issued in 1933.

The assets of the territory at the 31st December, 1936, consisted of:—

	£
Cash	171,859
Investments	79,427
Advances pending the receipt of grants from Beit Railway Trust	1,846
Sundry debtors	44,240
Stores	32,626
	£329,998

The liabilities were:—

	£
Post Office Savings Bank	33,907
Native Reserves Fund	14,013
Sundry creditors	73,643
Northern Rhodesia 3½ per cent. Loan, 1955-65, unexpended balance	55,572
Seigniorage Reserve	5,000
Reserve Fund	30,000
Excess of assets over liabilities	117,863
	£329,998

The main headings of taxation and yields during 1936 were as follows:—

	£
Licences	33,950
Native Tax	116,160
Customs and Excise Duties	266,793
Income Tax	211,721

Licence fees are principally derived from trading, vehicles, arms, shooting of game, sale of liquor, and prospecting for minerals.

The annual native tax rates and the yields in 1936 are as follows:—

	£
Barotse Province (7s. 6d.)	22,365
Other Provinces (from 7s. 6d. to 15s. according to district)	93,795
	£116,160

All male natives are liable to pay one tax annually if they have reached eighteen years of age and are not indigent by reason of age, disease or such other cause as the District Officer may accept. Women and children are not liable and there is no tax on additional huts or on plural wives. It is not the practice to enforce payment on local natives who have been absent from the territory for periods exceeding twelve months if they are able to produce a tax receipt from an adjoining territory for that period and if they have not cultivated lands locally. The persons liable for tax are recorded in registers compiled under the supervision of District Officers. Collection is direct by officials of the Government and not by Native Authorities. Recovery for default is by distress through the Courts. The tax may be accepted in grain or stock or other produce at the discretion of the District Officer, but the practice is rare. Thirty per cent. of the Barotse tax is paid to a Trust Fund and applied directly to expenditure on native interests in the Barotse area.

For Customs purposes Northern Rhodesia is divided into two zones known as the Congo and Zambezi Basins. The Congo Basin can roughly be taken to be all the territory north of a line drawn on a map of Northern Rhodesia in a south-westerly direction from Fife in the north-east to the border where the territory joins the south-east corner of the Belgian Congo. The remainder of the territory to the west and the south constitutes the Zambezi Basin. The Zambezi Basin is by far the more important part of the territory industrially, and more than 90 per cent. of the total trade is transacted in this area.

The Zambezi Basin is subject to Customs Agreements with Southern Rhodesia, the Union of South Africa, and with the Bechuanaland Protectorate, Basutoland, and Swaziland. The agreements provide in general for considerable rebates upon interchange of local manufactures, and for free interchange of raw products with limitation in regard to leaf tobacco.

The Congo Basin part of the territory is within the area defined by the Berlin Conference of 1885, and under the terms of the Convention revising the General Act and Declaration of Brussels of the 2nd July, 1890, signed at St. Germain-en-Laye on the 10th September, 1919, commercial equality within this area must be granted to nationals of the Signatory Powers and those of States Members of the League of Nations which adhere to the Convention. This part of the territory is therefore excluded from the terms of the Customs Agreements mentioned in the preceding paragraph.

Empire preference is given in the case of the following classes of goods, which are mainly liable to *ad valorem* rates of duty:—clothing, blankets and rugs, cotton piece-goods, motor cars and all articles usually imported for household and native use, the duty on Empire products being in almost every instance

10 per cent. or 12 per cent., and the duty on foreign products varying from 15 to 30 per cent.: in the case of cotton and silk piece-goods, shirts, singlets, and rubber shoes, from foreign countries, the tariff provides for alternative specific rates of duty if such should be greater. Agricultural, electrical, mining, and other industrial machinery, pipes and piping, metals and metal manufactures imported for industrial purposes, if of Empire manufacture, are free of duty, and if of foreign origin are subject to an *ad valorem* duty of 5 per cent., except foreign electrical machinery on which the duty is 15 per cent. *ad valorem*.

Specific rates of duty apply to practically all imported foodstuffs, motor spirit, lubricating oils, paraffin and cement, and to spirits, wines, beer, and tobacco; upon the latter items, apart from rum, no preference is granted except under the terms of the Customs Agreements with the neighbouring territories in the south, but varying rates of preference are granted to foodstuffs of Empire origin.

The Customs Tariff contains two scales of duty:—

Scale " A "—in respect of goods not entitled to preferential treatment;

Scale " B "—in respect of goods from the United Kingdom and British Possessions, and all goods imported into the Congo Basin area.

Ports of Entry.

The following are the ports of entry into and exit from Northern Rhodesia:—Ndola, Livingstone, Fort Jameson, Broken Hill, Lusaka (free warehousing ports), Abercorn, Solwezi, Fort Rosebery, Chingola, Kawambwa, Mpika, Balovale, Mwinilunga, Isoka, Chiengi, Feira, Kazangula, Lundazi, and Mufulira.

Customs Agreements.

The terms of the Agreement with the Union of South Africa provide for the transfer of Union rates of duty or Northern Rhodesia rates of duty, if such are higher, when overseas goods are removed from the Union to Northern Rhodesia, and for the transfer of Union rates of duty when overseas goods are removed from Northern Rhodesia to the Union. In respect of local manufactures (with certain exceptions), removed between the two territories Government payments of 15 per cent. of the export value of foodstuffs and 10 per cent. of the export value of other manufactures are made. During 1936 the Agreement was amended and a Government payment is not now made on electrolytic copper and zinc produced in Northern Rhodesia and removed to the Union. The other exceptions are manufactured tobacco, beer, wines and spirits, which are directly taxed at tariff rates subject to the following rebates:—manufactured tobacco, 75 per cent.; beer and wines, 50 per cent.; spirits, 25 per cent. Free interchange of unmanufactured goods is provided for, but Northern Rhodesia leaf tobacco exported to the Union is limited to 400,000 lb. per annum free of duty and, similarly, Union leaf tobacco imported into Northern Rhodesia is limited to 50,000 lb. free of duty.

The terms of the Agreement with Southern Rhodesia provide for a uniform tariff so far as possible and the transfer of the higher duty imposed in either territory when imported goods are removed from one territory to the other. In respect of local manufactures removed between the two territories, Government payments of 12 per cent. of the export value of foodstuffs and 9 per cent. of the export value of all other local manufactures are transferred, except in the case of beer, wines and spirits, which are directly taxed at tariff rates subject to the following rebates:—beer and wines, 50 per cent.; spirits, 25 per cent. Cigarettes and tobacco of Southern Rhodesia or Northern Rhodesia manufacture are not liable to import rates upon removal from one territory to the other but are subject to a transferred payment of the appropriate excise duties. Free interchange of unmanufactured goods is provided for.

APPENDIX.

PUBLICATIONS OF GENERAL INTEREST RELATING TO NORTHERN RHODESIA.

Expedition to the Zambesi and Its Discovery of Lakes Shirwa and Nyasa. By D. and C. Livingstone. (John Murray, London. 1865. 21s.)

The Lands of the Cazembe. Translation of Dr. Lacerda's diaries and information about Portuguese expeditions. By Sir Richard Burton. Published by the Royal Geographical Society. (John Murray, London. 1873.)

Livingstone and the Exploration of Central Africa. By Sir H. H. Johnston. (Phillip & Son, London. 1894. 4s. 6d.)

On the Threshold of Central Africa. By F. Coillard. (Hodder & Stoughton, London. 1897. 15s.) Contains an account of the social and political status of the Natives.

Exploration and Hunting in Central Africa. By A. St. H. Gibbons. (Methuen & Co., London. 1898. 15s.) Contains a full, careful description of the Upper Zambesi, and an account of the subjects of Chief Lewanika.

Au Pays des Ba-Rotsi, Haut-Zambesi. By A. Bertrand. Hachette, Paris. 1898. English Edition, Unwin. 16s.)

In Remotest Barotseland. By Colonel C. Harding. (Hurst & Blackett, London. 1905. 10s. 6d.)

The Great Plateau of Northern Rhodesia. By G. Gouldsbury and H. Sheane. (Arnold, London. 1911. 16s.)

The Ila Speaking Peoples of Northern Rhodesia. By Rev. E. W. Smith and Captain A. M. Dale. (MacMillan & Co., London. 1920. 2 vols. 50s.)

In Witch-bound Africa. By F. H. Melland. (Seeley, Service, London. 1923. 21s.)

The Making of Rhodesia. By H. Marshall Hole. (MacMillan & Co., London. 1926. 18s.)

The Way of the White Fields in Rhodesia. By Rev. E. W. Smith. (World Dominion Press, London. 1928. 5s.)

The British in Tropical Africa. By I. L. Evans. (Cambridge University Press. 1929. 12s. 6d.)

The Lambas of Northern Rhodesia. By C. M. Doke. (Harrap, London. 1931. 36s.)

A Faunal Survey of Northern Rhodesia, with Especial Reference to Game, Elephant Control and National Parks, with Maps. By C. R. S. Pitman. (Government Printer, Northern Rhodesia. 1934. 7s. 6d.)

Native Tribes of North-Eastern Rhodesia. By J. C. C. Coxhead. Published by the Royal Anthropological Institute.

Tribal Areas in Northern Rhodesia. By Thomson J. Moffat and W. G. Fairweather. (Government Printer, Northern Rhodesia. 3s.)

Native Tribes of the East Luangwa Province of Northern Rhodesia. By E. M. Lane Poole. (Government Printer, Northern Rhodesia. 1934 3s.)

British South Africa Company's Reports on the Administration of Rhodesia.

European Education Committee. Report, 1929. (Government Printer, Northern Rhodesia. 2s.)

Present Position of the Agricultural Industry, and the necessity or otherwise of Encouraging Further European Settlement in Agricultural Areas. Report by S. Milligan, 1931. (Government Printer, Northern Rhodesia. 2s.)

Census of 1931. Report of Director. (Government Printer, Northern Rhodesia. 2s. 6d.)

Defence Commission. Report, 1932. (Government Printer, Northern Rhodesia. 2s. 6d.)

Finance Commission. Report, 1932. (Government Printer, Northern Rhodesia. 2s. 6d.)

Agricultural Survey Commission. Report, 1930-1932. (Government Printer, Northern Rhodesia. 7s. 6d.)

Copperbelt Disturbances. Report of Commission of Enquiry, 1935. Cmd. 5009. (H.M. Stationery Office, London. 1s. 6d.) Evidence taken by the Commission. (Government Printer, Northern Rhodesia. 15s.)

Economics of the Cattle Industry in Northern Rhodesia. Memorandum, 1935. (Government Printer, Northern Rhodesia. 1s.)

General Geology of Northern Rhodesia. Notes by J. A. Bancroft and R. A. Pelletier. (Government Printer, Northern Rhodesia. 1s. 6d.)

Blue Book (Annually). (Government Printer, Northern Rhodesia. 10s. 6d.)

Annual Reports of the Several Government Departments. (Government Printer, Northern Rhodesia. Various prices.)

The Soils, Vegetation and Agricultural Systems of North-Western Rhodesia: Report of the Ecological Survey by C. G. Trapnell and J. M. Clothier. (Government Printer, Northern Rhodesia. 15s.)

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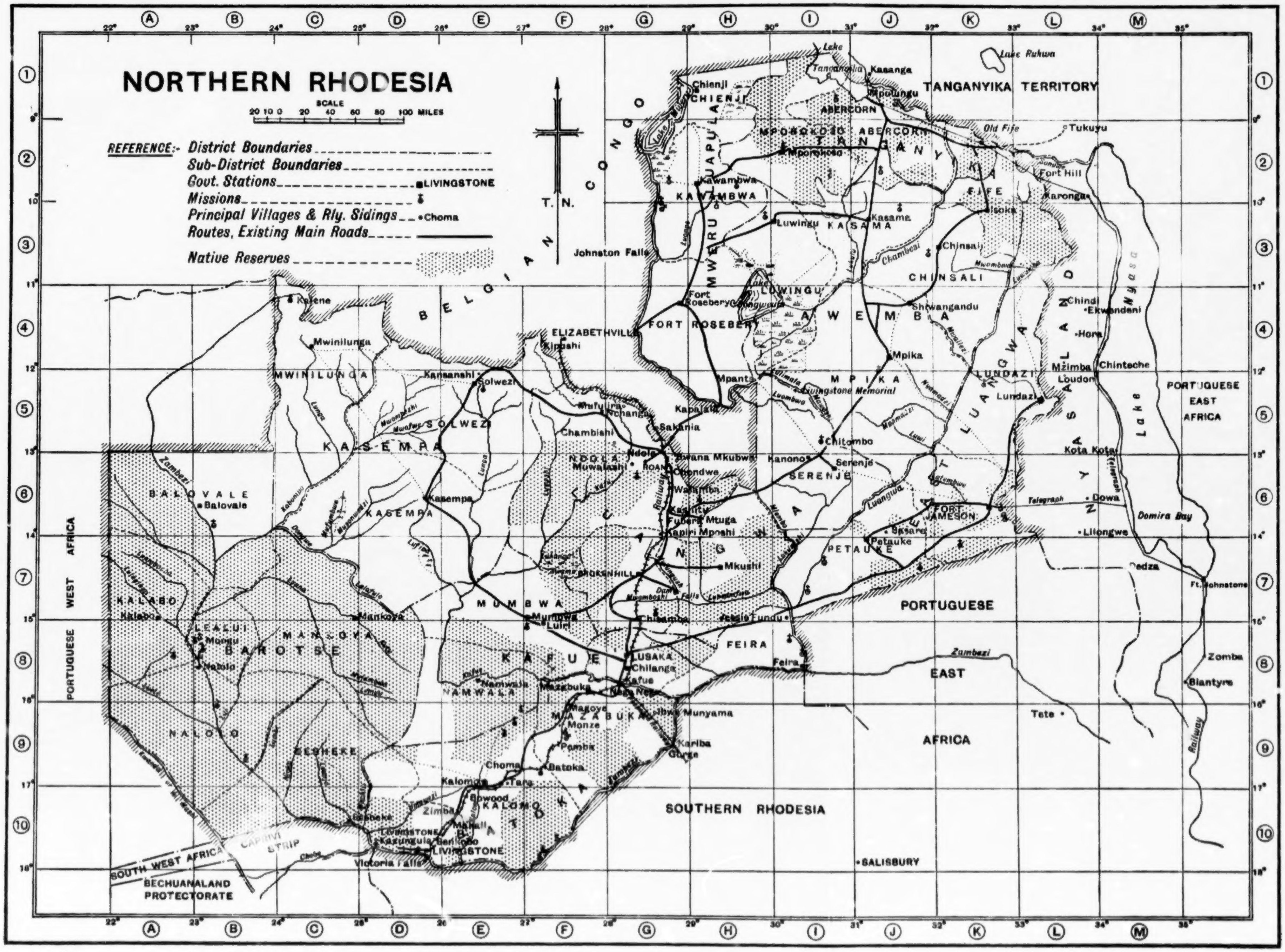
NORTHERN RHODESIA
SCALE
20 10 0 20 40 60 80 100 MILES
REFERENCE:- District Boundaries
Sub-District Boundaries
Govt. Stations ■LIVINGSTONE
Missions
Principal Villages & Rly. Sidings •Choma
Routes, Existing Main Roads
Native Reserves
T. N.
BELGIAN CONGO
TANGANYIKA TERRITORY
Lake Tanganyika
Lake Rukwa
Lake Mweru
Kasanga
Mpulungu
Chienji
CHIENJI
ABERCORN
MPOROKOSO
Mporokoso
Old Fife
Tukuyu
Fort Hill
Karonga
FIFE
Isoka
Kawambwa
KAWAMBWA
MWERU LUAPULA
Luwingu
KASAMA
Kasame
Chinsali
CHINSALI
Johnston Falls
Fort Rosebery
FORT ROSEBERY
LUWINGU
AWEMBA
Shiwangandu
Chindi
Ekwendeni
Hora
Mzimba
Chinteche
Loudon
ELIZABETHVILLE
Kipushi
Kasenga
Kafue
MWINILUNGA
Mwinilunga
Kansanshi
Solwezi
SOLWEZI
KASEMPA
Kasempa
Mufulira
Nchanga
Sakania
Kapalala
Mpanta
Livingstone Memorial
MPIKA
Mpika
LUNDAZI
Lundazi
Chitambo
Chambishi
Ndola
NDOLA
Muwalashi
Bwana Mkubwa
Roan
Opendwe
Walamba
Kanona
Serenje
SERENJE
Kashitu
Fubera
Mtuga
Kapiri Mposhi
Luangwa
EAST LUANGWA
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FORT JAMESON
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PETAUKE
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Dedza
Domira Bay
Lake Nyasa
NYASALAND
PORTUGUESE EAST AFRICA
Ft. Johnstone
Zomba
Blantyre
Tete
Railway
BALOVALE
Balovale
Zambezi
PORTUGUESE WEST AFRICA
KALABO
Kalabo
LEALUI
Mongu
Nalolo
MANKOYA
Mankoya
BAROTSE
BROKEN HILL
CENTRAL
Mkushi
Chisamba
Jessie Fundu
MUMBWA
Mumbwa
Luiri
KAFUE
NAMWALA
Namwala
Lusaka
Chilanga
Kafue
Mazabuka
Magoye
Monze
MAZABUKA
Pemba
Gwembe
Kariba Gorge
FEIRA
Feira
Zambezi
NALOLO
SESHEKE
Sesheke
Choma
Batoka
Kalomo
KALOMO
Zimba
Bowood
BATOKA
LIVINGSTONE
Kazungula
Livingstone
Victoria Falls
CAPRIVI STRIP
SOUTH WEST AFRICA
Chobe
BECHUANALAND PROTECTORATE
SOUTHERN RHODESIA
SALISBURY
PORTUGUESE EAST AFRICA
A B C D E F G H I J K L M
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22° 23° 24° 25° 26° 27° 28° 29° 30° 31° 32° 33° 34° 35°
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ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF NORTHERN RHODESIA, 1937

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I.—GEOGRAPHY, CLIMATE, AND HISTORY.

Geography.

The territory known as the Protectorate of Northern Rhodesia lies between longitudes 22° E. and 33° 33′ E. and between latitudes 8° 15′ S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South West Africa, comprising in all an area that is computed to be about 290,320 square miles. The River Zambesi forms the greater part of the southern boundary; its two main northern tributaries are the rivers Kafue and Luangwa. With the exception of these river valleys, the territory consists of a table-land varying from 3,000 to 4,500 feet in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

History.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown territory.

The Portuguese Governor of Sena, Dr. Lacerda, encouraged by the report of the half-breed Fereira who returned from Kasembe's capital, close to the eastern shores of Lake Mweru in June, 1798, decided to set out on the expedition he had planned the year before, and on 3rd July, 1798, left Tete for the north. He was accompanied by Fathers Francisco, Jose and Pinto, twelve officers and fifty men-at-arms, but failed to reach his goal, and died within a few miles of Kasembe's capital. Father Pinto led the remnants of the expedition back to Sena, and it is from Dr. Lacerda's diaries, which Father Pinto with great difficulty saved, that the first authentic history of what is now North-Eastern Rhodesia was taken. Dr. Lacerda was followed in the early 19th century by two Portuguese traders, Baptista and Jose, who brought back stories of the great interior kingdom of the Balunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the 16th to the 19th century. Very few historical facts are known about it, but the name of Mwatiamvo, the dynastic title of the paramount chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and in 1855 discovered the Victoria Falls, that the civilised world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the natives, of the wealth of game, and of the glories of the Victoria Falls, were Serpa Pinto, Cameron, Selous and Arnot.

From the very early days when the hordes of migratory Bantu swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasion from stronger tribes on its borders, so much so, that the vast majority of the present native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Masubia on the Zambesi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time the population of the territory has been classified into seventy-three different tribes, the most important of which are the Wemba, Ngoni, Chewa, and Wisa in the north-eastern districts, the Rozi, Tonga, Luvale, Lenje, and Ila in the north-western districts, and the Senga, Lala, and Lunda, members of which are resident in both the eastern and western areas. There are some thirty different dialects in use, but many of them vary so slightly that a knowledge of six of the principal languages will enable a person to converse with every native in the country. Chinyanja is in use as the official language of the police and is probably the language most generally spoken by Europeans; it is in reality a Nyasaland language—the word means "Language of the Lake"—but it is also spoken to some extent round Fort Jameson. In many instances the tribes overlap and encroach upon each other, and it is not uncommon to find a group of villages of one tribe entirely surrounded by villages of another tribe. Many of the tribes on the borders extend into neighbouring territories; in some instances the paramount chief resides in a foreign country and only a small proportion of the tribe lives in Northern Rhodesia.

The chief invaders of the early part of the 19th century were the Arabs from the north, the Angoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the territory, and the Makololo, an offshoot of the Basuto family, who in the beginning of the 19th century fought their way from the south through Bechuanaland and across the Zambesi under the noted Chief Sebitoani; they conquered the Batoka, the Masubia, and the Marozi and founded a kingdom which was distinguished by a comparatively high degree of social organization.

The duration of the Makololo kingdom was short, lasting between twenty and thirty years. Soon after the death of Sebitoani, the Marozi rebelled and massacred the Makololo to a man, keeping their women. As a result of this the influence of their occupation is still to be seen in the Sikololo language, which is largely spoken amongst the tribes near the Zambesi. The Marozi under Lewanika enlarged their kingdom, by conquering several surrounding tribes, such as the Mankoya, the Malovale, and the Batoka. Beyond these limits their authority was both nebulous and ephemeral.

In the year 1891 Lewanika was informed that the protection of Her Majesty's Government had been extended to his country as he had requested that it should be, and on 17th October, 1900, the Barotse Concession was signed by him and his chiefs and representatives of the Chartered Company. The concession was confirmed in due course by the Secretary of State for the Colonies and under its terms the Company acquired certain trading and mineral rights over the whole of Lewanika's dominion, while the paramount chief was to receive, among other advantages, an annual subsidy of £850.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lakes Nyasa and Tanganyika over the whole territory; but with the establishment of a Government post at Abercorn in 1893 the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave-raiders were occasionally encountered on the north-east boundary and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country.

The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavery. This social serfdom was brought to an end by the edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Before 1899 the whole territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland-North Western Rhodesia Order in Council placed the Company's administration of the western portion of the country on a firm basis; it was closely followed by the North-Eastern Rhodesia Order in Council of 1900 which had a similar effect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924. In that year the administration of the territory was assumed by the Crown in terms of a settlement arrived at between the Crown and the Company, and the first Governor was appointed on 1st April, 1924.

Since that date rich copper deposits have been discovered in the north-west of the territory and have been developed into an extensive industrial area embodying three large townships with a population including several thousands of Europeans.

Climate.

There are considerable differences between various parts of the country. The Zambesi, the Luangwa and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November before the rains break, when the maximum is 97° F. at Zambesi valley stations and 85° F. at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90° F. with a mean minimum of 64° F., while the corresponding figures for the four months of the cold season (May to August) are 79° F. and 46° F.

The following table gives representative temperatures for the territory experienced during 1937:—

	Highest mean Max. °F.	*Month.*	*Lowest mean Min. °F.*	*Month.*	*Absolute Max. °F.*	*Month.*	*Absolute Min. °F.*	*Month.*
Livingstone, 3,160 ft.	97·6	Nov.	41·2	June	105·2	Nov.	29·8	June
Broken Hill, 3,920 ft.	88·5	Nov.	45·9	July	97·5	Nov.	36·1	June
Isoka, 4,210 ft.	87·1	Nov.	54·5	July	91·0	Nov.	48·0	July
Balovale, 3,400 ft.	86·3	Nov.	42·5	July	102·0	Nov.	32·0	July

Highest temperature ... ... 110° F., Mulungushi
Lowest temperature ... ... 28° F., Solwezi

The rainy season usually begins in November and lasts until April. Slight showers occur to the north-east of the territory in August and to the north-east and north-west in September. In October the rains begin to spread over the whole territory, reaching a maximum in December. The intensity of rainfall decreases in January, this falling-off appearing to be the nearest approach to a break in the rains, which is characteristic of the two seasonal areas of the central tropical zone. In February the rains re-establish themselves over the whole of the central area of the territory, following much the same contour alignment as in December. In March the zone of heavy rainfall shifts well to the north and east. By April the rains have moved north and in May they have practically ceased.

The greatest rainfall recorded in 24 hours was 5·50 inches on the 22nd February, at Kapara in the Fort Jameson district.

II.—GOVERNMENT.

Central Administration.

The office of Governor was created by an Order of His Majesty in Council dated 20th February, 1924, and the first Governor assumed his duties on 1st April, 1924.

The Governor is advised by an Executive Council which consists of five members—the Chief Secretary, the Attorney-General, the Financial Secretary, the Senior Provincial Commissioner, and the Director of Medical Services. Provision is also made for the inclusion of extraordinary members on special occasions.

The Order in Council provided that a Legislative Council should be constituted in accordance with the terms of the Northern Rhodesia (Legislative Council) Order in Council, dated 20th February, 1924, to consist of the Governor as President, the members of the Executive Council *ex officio,* nominated official members not exceeding four in number, and five elected unofficial members.

In 1929 the number of elected unofficial members was increased to seven consequent upon the very considerable increase in the European population. During the coming year the numbers of official and unofficial members are being equalised by the addition of a nominated unofficial member to represent native interests and a reduction by one of the number of official members.

The seat of government was transferred from Livingstone to Lusaka during the year, the official inauguration of the new capital being arranged to coincide with the ceremonial celebration of His late Majesty's birthday on the 3rd of June.

Provincial Administration.

For administrative purposes the territory was formerly divided into nine provinces, each of which was under a Provincial Commissioner responsible for his province to the Governor. The provinces were grouped together under five Provincial Commissioners in 1933 and as from 1st January, 1935, the number of provinces was reduced to five. During 1937 the number was increased to six. The provinces are divided into districts under the charge of District Commissioners responsible to the Provincial Commissioners.

Native Administration.

In 1936 a new Native Authority Ordinance was passed, which modified the previous Ordinance, providing for the recognition of Native Authorities by the Governor, instead of their appointment, as previously. Emphasis is laid on the development of tribal institutions on traditional lines. The Ordinance gives powers to Native Authorities to issue Orders and to make rules to enable them to govern and maintain order in tribal areas. Provision is also made for the setting up of Native Treasuries, and powers are given to Native Authorities to impose rates, dues and fees, subject to the Governor's approval. The passing of the Ordinance marks a definite advance in the development of tribal self-government. Native Treasuries came into operation during the year.

A similar Ordinance was also passed for Barotseland during 1936, with the concurrence of the Barotse Native Government. It follows closely the provisions of the Native Authority Ordinance, but gives the Paramount Chief wider powers than are given to Native Authorities elsewhere. A Native Treasury had already been established in Barotseland, and its institution continues to show improvement in the control of moneys by the Barotse Native Government.

III.—POPULATION.

The first census of the territory took place on the 7th May, 1911, prior to the amalgamation in the same year of North-Eastern and North-Western Rhodesia under the title of Northern Rhodesia; the second was held on the 3rd May, 1921, and the third on the 5th May, 1931.

The following table shows the increase of population since 1911 (the figures for European population for 1931 are census figures, whilst all those for African population are taken from the annual Native Affairs Reports):—

Year.	*Europeans.*	*Increase per cent.*	*Africans.*	*Increase per cent.*	*Proportion of Africans to one European.*
1911 ...	1,497	—	821,063	—	548·47
1921 ...	3,634	143	979,704	19	269·59
1931 ...	13,846	381	1,372,235	40	99

The increase in the number of Europeans between 1921 and 1931 was due to the influx which took place during the development of the copper mines in the Ndola district between 1927 and 1931. The mines had nearly completed construction towards the end of the year 1931 and a considerable number of Europeans left the territory in consequence.

The economic depression which set in towards the end of the same year was the cause of a further drop of 23·7 per cent. during 1932. In 1933 and 1934 an increase was brought about by the renewed activity at the copper mines. The European population is now in the region of 10,500.

The numbers of Asiatics and non-native coloured persons in the territory at the 1931 census amounted to 176 and 425 respectively.

The African population in 1934 was estimated to be 1,366,425, which showed a decrease of 4,788 or ·34 per cent. on the previous year, and its average density through the territory was 4·7 to the square mile. No count of the native population has since been made but so far as is known there has been little change.

Immigration.

Fourteen thousand, five hundred and seventy-eight persons entered Northern Rhodesia during 1937. This number includes immigrants, returning residents, visitors, tourists, and a small percentage of persons in transit.

Immigrants numbered 2,737 of whom 2,524 were British Subjects and 213 Aliens, the percentage of Aliens being 7·78 per cent. of the year's total.

The following comparative table of Immigrants shows the progress of the territory:—

1928.	*1929.*	*1930.*	*1931.*	*1932.*	*1933.*	*1934.*	*1935.*	*1936.*	*1937.*
1,066	1,861	3,651	1,702	615	801	1,726	1,352	1,212	2,737

Ten persons were removed from the territory in terms of the Immigration Ordinance. Seven persons were deported as indigent, and three on account of previous convictions. Accurate figures of emigration are not available.

One destitute person with four dependants was repatriated to the Union of South Africa at Government expense during the year, a decrease of 14 on the total for 1936.

Asiatic Population.

The Asiatic population as at the 31st December, 1937, was approximately 421, as compared with 360 in 1936. All these Asiatics are British Indians.

IV.—HEALTH.

The medical facilities available to the European and native population in the past year were maintained throughout the year, and were as follows:—

European Hospitals.

Lusaka.
Livingstone.
Broken Hill.
Ndola.
Kasama.
Fort Jameson.
Mongu.

Native Hospitals.

Lusaka.
Livingstone.
Choma.
Mazabuka.
Broken Hill.
Ndola.
Kasama.
Fort Rosebery.
Fort Jameson.
Mongu.
Balovale.
Abercorn.

In addition to these hospitals, Government maintained 23 dispensaries at Government stations and 15 in rural districts in charge of native orderlies. The rural dispensaries are visited from time to time by the medical officer of the district.

Owing to the vastness of the territory and the lack of means of communication, the treatment of the African population presents considerable difficulty. Steps have already been taken to increase the number of rural dispensaries and native medical orderlies are being trained at the Medical Training School, Lusaka for this purpose.

A great deal of valuable medical work has been done by the various missions, who control many hospitals and dispensaries under the supervision of doctors, trained nurses and missionaries with some medical training. These services to the natives are subsidized by Government to the extent of £3,465 per annum.

The large mines in the copper belt maintain their own medical staff in addition to well-equipped hospitals in which they care for their employees. The mine hospitals also treat destitute Europeans and unemployed natives in the copper belt at Government expense in cases of urgency, but other cases are, when possible, transported to the Government hospital at Ndola.

The railway maintains either full-time or part-time medical officers at Lusaka, Livingstone, Choma, Broken Hill and Ndola, who give medical treatment to railway employees as required.

School Inspections.—Medical and dental inspections of all European schools are carried out by Government medical officers and dental surgeons subsidized by Government, and parents are advised as regards the health of their children.

The response of European parents in seeking dental treatment is disappointing, although the impecunious receive free treatment.

European Vital Statistics.

	1930.	*1931.*	*1932.*	*1933.*	*1934.*	*1935.*	*1936.*	*1937.*
Number of deaths.	163	210	117	103	108	100	78	115
Deaths of infants under 1 year of age.	28	28	24	13	15	15	6	11
Mortality per 1,000 live births.	102·56	84·08	72·29	40·88	47·61	53·00	19·16	37·16

Number of births, 296.

Birth rates and death rates are not now calculated since no sufficiently close knowledge of the population exists.

One post of health officer, which had been abolished in 1933, was reconstituted during the year, and part-time medical officers of health were appointed to the three growing townships in the copper belt. All medical officers attempt to perform the duties of medical officers of health, in addition to their clinical duties.

The general health of the country throughout the year was good, and no epidemic disease of great importance was recorded.

Malaria and Blackwater Fever.—Considerable anti-malarial measures continue to be undertaken by the chief mining companies with excellent results. The following table of European deaths indicates a general improvement of conditions as compared with 1931 and 1932:—

Deaths.	*1931.*	*1932.*	*1933.*	*1934.*	*1935.*	*1936.*	*1937.*
Malaria	22	16	3	10	8	9	8
Blackwater... ...	19	22	20	11	13	5	11

Trypanosomiasis.—Thirty-four cases of this disease were reported during the year. All these cases were natives, and only eight deaths occurred. The distribution of cases was as follows:—

	Cases.	*Deaths.*
Lusaka	4	2
Ndola	14	3
Kasama	16	3
	34	8

Typhoid.—Six European and fifteen native cases were reported during the year, with one European and two native deaths.

Variola.—There were no cases of variola major in 1937, but certain precautionary measures were taken to stop the spread of infection into the territory from areas on the Eastern, North-Western and Western borders where epidemics were reported.

Measles.—Twenty-two Europeans and 121 native cases with four native deaths were reported during the year from rail line stations and Fort Rosebery in the Northern Province. This disease only developed epidemic proportions at Fort Rosebery where there were 103 native cases with four deaths.

Influenza.—There were no epidemics of influenza, the total number of cases treated being 28 with seven deaths, as follows:—

	Cases.	*Deaths.*
Fort Rosebery... ...	22	1
Abercorn	5	5
Balovale	1	1
	28	7

Child Welfare.

The welfare clinics previously established at Livingstone, Lusaka, Ndola and Luanshya functioned throughout the year, and reports received are most encouraging. This work is developing and increasing among both European and natives. At Lusaka, Ndola and Luanshya full-time nursing sisters of the Government Service are engaged in welfare work. At Lusaka a second nurse is paid by the Town Management Board. At Livingstone a voluntary society interested in this aspect of medical work employs a nurse, and derives funds from annual grants-in-aid contributed by the Beit Trustees, the Railway Company, the Municipality and the Government.

V.—HOUSING.

European Government Housing.

The new houses at the new capital are brick built and are mostly of two-storey villa type without verandahs. There are also six blocks of flats, each flat containing two rooms, kitchen and bathroom. Each block contains eight flats. The newest houses and the flats are not mosquito-proofed. Old and new Government houses at Lusaka have been given water-carried, indoor sanitation.

Outside Lusaka, most Government quarters are brick buildings of bungalow type with wide verandahs, and many are provided with mosquito gauze. Domestic sanitation consists of earth closets.

European Non-Government Housing.

Modern buildings, most suitable to this country, and equipped with every convenience, are to be found on all the mines on the copper belt. Most privately-owned residences throughout the territory are similar to the older type of Government houses.

Native Housing.

In areas where most Europeans live the natives are housed in locations. The houses themselves, in most places, and their surroundings leave much to be desired, but efforts are being made to get away from the old compound atmosphere and to provide quarters best described as an improved African village. The Governor's Village and the personal servants' compound at the new capital are examples of this, and these have waterborne sanitary arrangements.

The housing of natives in the mining areas is very good on the whole, and compares very favourably with most town compounds in the railway line townships.

There are many evidences that natives themselves appreciate good and sanitary housing, and improvement as to space, lighting and ventilation may be seen in native villages.

VI.—NATURAL RESOURCES.

Land and Agriculture.

Of the total area of the territory, approximately 275,000 square miles, some 13,700 square miles, or about 4½ per cent., has been alienated to Europeans.

The report of the Ecological Survey of North-Western Rhodesia was published early in 1937. The main objects of the survey are to explore the natural resources of the territory, to assess the potentialities of different types of country for

European settlement and to make a study of Native agricultural systems. As far as the North-Western area is concerned, natural resources have proved few enough and the amount of Crown land of promise for European farming is limited by the predominance of poor soils. The study of Native agriculture has, however, provided data of great value.

The quantities of the major agricultural commodities produced by Europeans in the last two years are given in the following table:—

	Maize. Bags of 200 lb.	*Tobacco. Lb. of cured leaf.*	*Wheat. Bags of 200 lb.*	*Mixed Vegetables. Tons.*
1936	329,000	1,275,000	11,120	1,130
1937	294,500	1,260,000	5,500	1,125

For the fourth successive season the annual rainfall in the railway belt has been low and "permanent" water supplies have been seriously reduced in consequence. The effective rains ended early in 1937, but this had no serious effect on the maize crop. The average European production fell from the "bumper" figure of 8·0 to 6·6 bags per acre, but only a few years ago 6·6 bags would have been regarded as very satisfactory indeed.

The general standard of farming has improved greatly in recent years and the acreage under green manures has increased from 8,500 in 1931 to 16,000 in 1937.

Wheat is grown almost exclusively as a winter crop under irrigation. Lusaka is the main producing centre. For the second successive season the crop was a poor one as much of it was ruined by water shortage. Only 2,524 acres were planted as compared with 4,249 in the previous year, but the water supply was inadequate even for this reduced acreage. Much of the acreage had to be grazed off. This abandonment brought the average yield down to 2·2 bags per acre as compared with a normal yield of 5 bags, and the total production was the smallest for many years.

Tobacco is grown chiefly in the Fort Jameson district. The district as a whole enjoyed the best season it has had for years. Crops were free from disease and of good quality and the prices obtained were the highest since the boom of ten years ago.

Customs figures for export of tobacco during 1937 are as follows:—

	Lb.	*Value £*
Overseas	350,912	10,235
Union of South Africa	398,423	22,250
Southern Rhodesia	272,148	9,299
Totals	1,021,483	£41,784

Exports of maize grain during the year were approximately:—

	Bags.	*Value £*
Overseas	195,200	58,156
Union of South Africa	34,260	11,570
Southern Rhodesia	28,450	10,720
Totals	257,910	£80,446

During the latter part of the year internal consumption of maize increased considerably. Current consumption is estimated at rather over 250,000 bags per annum, an increase of almost 25 per cent. over last year's figure.

The Economics of Native maize production have been revolutionized by maize control. Where formerly but a fraction of his surplus maize was sold, an assured market now exists for every bag of maize the Native cares to bring in. Production of Native maize for sale in 1937 is estimated at 170,000 bags. In the first pool-year, the Control Board price for Native maize was 5s. per bag, which, as it was fixed before the phenomenal rise in export parity, resulted in a profit of £17,000 on Native maize transactions. This sum has been held in reserve as a fund to stabilize prices. In the current year the price offered was raised to 6s. as there was no indication of a decline in export parity.

The scheme for supplying the internal market has had a stimulating effect on the Native production of groundnuts and beans. The certainty of being able to dispose of the crop has led to increased production, although this has not all gone to supply the internal market, since a shortage in Southern Rhodesia diverted a portion of it to that territory. In addition, the mines provide a considerable market for mixed Native produce such as vegetables, relish crops, honey, Kaffir corn, cassava, tobacco and even dried caterpillars. Government propaganda has already had a stimulating effect on Native production of beeswax, and wax to the value of £5,000 was exported during 1937.

The territory continues to obtain the bulk of its fruit requirements from Southern Rhodesia and the Union of South Africa. Deciduous fruit trees are successful only in a few favoured localities, but citrus thrives in most places where irrigation is possible. The equivalent of about 6,500 cases of locally-produced citrus was sold during 1937.

Coffee yields were again low but production increased from 430 cwt. in 1936 to 518 cwt. in 1937.

Livestock.

Northern Rhodesia remains free from the major diseases of stock, with the exception of contagious bovine pleuropneumonia. The preliminary investigational work on the behaviour of vaccine in combating the disease was so far successful as to warrant a measure of field inoculation, which, it is hoped, will be extended during the coming year. Foot and mouth disease was finally eradicated from the territory early in 1936 and, fortunately, no recrudescence has occurred.

The usual incidence of redwater, gallsickness, heart-water and other tick-borne diseases occurred, and it is unfortunate that certain stockowners still fail to realize the value of short-interval dipping in the control of these conditions. Trypanosomiasis is very prevalent in certain areas of the territory. Sporadic outbreaks of anthrax, quarter evil and other bacterial diseases occur and are controlled by prophylactic inoculation. The territory remains free from Rinderpest and East Coast fever. The incidence of parasitic worms is high, particularly in sheep.

Pigs are singularly free from disease and thrive well. Outbreaks of fowl typhoid and fowl pox occur among poultry. Prophylactic inoculation is employed by the more progressive flock owners.

The demand for slaughter cattle increased during the year to such an extent that it was impossible to supply from sources within the territory. Importation from Southern Rhodesia and Bechuanaland therefore became necessary. Importation of breeding stock from Southern Rhodesia and the Union of South Africa continued throughout the year.

Mining.

PRODUCING MINES.

Roan Antelope Mine.—Extensive driving on the 820 level was carried out and the 820 North Limb haulage was connected by a cross cut to the No. 15 shaft. The Storke Service shaft reached its final depth of 2,644 feet and the headgear was completed. In addition, work in the Storke Hoisting shaft was continued and No. 16 shaft had been sunk to 670 feet by the end of the year.

During the period of complete derestriction production increased rapidly, reaching a maximum monthly output of 304,200 short tons of ore in September.

Nkana Mine.—Sinking operations were carried out in the Central Shaft, which had reached a depth of 1,850 feet at the end of the year. Development on the 1050 and 1250 levels was completed and connection made between the Central Shaft and No. 4 shaft. At the Mindola section stoping commenced and No. 1 shaft hoisting equipment and the necessary storage bins were completed and brought into commission. At the smelter a second cobalt lectromelt furnace was installed and started operations, the output of cobalt for the year being increased by 933,154 lb.

Mufulira Mine.—During the year intensive development of advance stoping and general preparation for increased production was carried out. The extraction of ore was confined to the three ore bodies on the 460 and 600 levels. The main pumping station and settling sumps were completed and equipped to pump 8,000 gallons of water per minute. Extensions were made to the concentrator plant and further extensions are in progress which will enable the plant to handle up to 8,000 tons of ore per day. The smelter started operations early in the year and proved satisfactory.

Work was started on the erection of a high-tension power transmission line to connect the Roan Antelope Mine with the Mufulira Mine. This is being done in order to permit the interchange of power between the two mines. It is hoped that this transmission line will be completed and brought into use in April, 1938.

Broken Hill Mine.—The production of zinc was curtailed owing to the shortage of water in the Mulungushi Dam, but with vanadium in demand at good prices the production of this metal was increased. Diamond drilling continued steadily throughout the year to prove the extent of the ore bodies. The sinking of the new " Davis Shaft " was started in September in preparation for mining the several ore bodies at depth.

This shaft is being sunk by the cementation method and by the end of the year had reached a depth of over 200 ft. It will probably ultimately reach a depth of about 1,100 ft. and will serve as a pumping shaft to deal with the large quantities of water which are likely to be encountered. During 1938 it is intended to begin work on a service shaft.

Luiri Gold Areas.—No development work was done on these areas, but 25,184 tons of ore were milled, producing 3,413 ounces of gold. At the end of the year the mine closed down for reconstruction before resuming under a new management.

Kansanshi Mine.—At the end of June this mine was re-opened, with the object of checking, sampling and recalculating the ore reserves. Work was confined to opening up the old drives and crosscuts for examination.

New Jessie Mine.—No development work was done, most of the ore treated being obtained from small veins exposed in the hillside below the mill and from the Klipspringer claims. The mine was closed down in October. The output of gold during the year was only 337 ounces.

Sachenga Mine.—This property was worked during the year and produced 8,928 lb. of Mica.

Cassiterides.—From this property 7·75 tons of Tin Concentrates were produced and shipped during the year.

Sasare West Mine.—No mining was done on this property, but the treatment of the sands dump produced 167 ozs. of gold.

Developing Mines.

Nchanga Mine.—At the beginning of the year the Power Plant was reconditioned and put into commission. Two incline shafts at an inclination of 15 degrees and a vertical shaft were started and satisfactory progress was made. In the incline shafts haulage is being carried out by means of endless rope haulages. A new power plant, together with the necessary workshops, is in the course of being erected.

Chakwenga Mine.—The power plant, consisting of two semi-portable boilers and two air compressors, was put into commission in February and worked satisfactorily throughout the year. Underground operations were confined principally to the sinking of No. 2 shaft, which advanced 275 ft. to a total depth of 325 ft. Other development work consisted of cutting a station at 300 ft. below surface, 321 ft. of driving and 759 ft. of crosscutting.

Kasonso Mine.—Two small shafts were sunk and at 100 ft. in depth crosscuts were driven to the reef. The mine was closed down in November.

Concessions.

Rhokana Concession.—In this Concession 2,217 square miles were traversed and mapped. Potholing and trenching was carried out at several mineral occurences north and south of Nchanga and also in the Mwinilunga District. At Konkola, about 20 miles north of Nchanga, 15 diamond drill holes, with an average depth of 830 ft., were completed. One diamond drill was employed at Katwishi 70 miles north-west of Nchanga near the Belgian Congo border.

Loangwa Concession.—The field parties prospected and mapped out 1,840 square miles, principally in the Abercorn and Kasama districts. The gold-bearing gravels in several streams tributary to the Chambezi River were investigated but the quantity of gravel available and the gold content were too low for company operations.

Rhodesia Mineral Concessions.—Field work was carried out principally on either side of the railway line north of the Kafue River and 596 square miles were prospected and mapped.

General.

From January to September, copper production was free from quota restriction and during this unrestricted period the copper mines were working at high pressure. In October the copper quota was re-introduced. Owing to high prices and increased production, the total value of minerals produced was twice as great as in the year 1936, amounting to £12,751,014.

The production of gold was again disappointing, being 4,228 ounces.

For the first time since mining started in the territory, selenium was produced, it was obtained from the Nkana refinery slimes.

VII.—COMMERCE.

Chiefly as a result of the prosperity of the copper producing industry the value of both imports and exports rose substantially as the result of the year's trading. The value of merchandise imported during 1937 amounted to £4,004,402 as compared with £2,291,953 in 1936, an increase of £1,712,449, or 75 per cent. In addition Government stores valued at £46,947 and specie totalling £34,596 were imported.

Total exports of merchandise reached the record value of £12,021,542 as compared with £6,037,616 in 1936, an expansion of £5,983,926 or 99 per cent. Specie to the value of £9,057 was exported.

The higher value of imports was reflected in all classes of merchandise, but was particularly marked in the case of Class V (metals, metal manufactures, machinery and vehicles), rising from £680,278 in 1936 to £1,680,621 in 1937 as a result mainly of heavy purchases for replacement and development purposes by the mining interests. Enhanced purchasing power both among Europeans and Natives, particularly on the copper belt, led to an increase in all imports classed as normal " consumption " goods.

The British Empire supplied 75 per cent. in value of the total imports of merchandise during 1937 as compared with 77 per cent., 75 per cent., 79 per cent., and 78 per cent. during the years 1933 to 1936. The United Kingdom, as usual, was the main country of supply with 37 per cent. of the total imports and the United States was again the largest non-Empire supplier with 12 per cent. Metals accounted for 97 per cent. of the total value of domestic exports, copper representing 90 per cent. The heavy expansion in the value of exports is due not only to the higher prices obtained for copper as compared with 1936, but also to heavily increased shipments of blister copper. The largest purchasers of domestic exports were the United Kingdom (51 per cent.), Germany (21 per cent.) and Italy (11 per cent.).

The following figures give the values of imports, exports and re-exports of merchandise during the past ten years:—

Year.	*Imports.*	*Exports and Re-exports.*
	£	£
1928	2,366,317	847,068
1929	3,602,417	899,736
1930	4,862,722	885,976
1931	5,140,548	1,178,515
1932	1,864,902	2,675,248
1933	1,931,829	3,715,396
1934	2,884,506	4,530,933
1935	2,902,960	4,778,604
1936	2,291,953	6,037,616
1937	4,004,402	12,021,542

Imports.

The following summary furnishes a comparison of the value of merchandise imported during the years 1934 to 1937, which originated from Empire and from foreign countries:—

Imported from	*1934.*	*1935.*	*1936.*	*1937.*
	£	£	£	£
Union of South Africa ...	448,629	410,140	377,096	716,061
Southern Rhodesia ...	422,574	449,673	492,557	623,642
United Kingdom and other Empire countries ...	1,299,686	1,444,298	917,595	1,650,277
Total British Empire...	2,170,889	2,304,111	1,787,248	2,989,980
Foreign countries	713,617	598,849	504,705	1,014,422
Total merchandise ...	£2,884,506	£2,902,960	£2,291,953	£4,004,402

For the purpose of illustrating the routes of import trade, the following table shows the value of merchandise from the Union of South Africa and Southern Rhodesia and directly from overseas during the years 1934 to 1937:—

Imports from.	*1934.*	*1935.*	*1936.*	*1937.*
	£	£	£	£
Union of South Africa ...	626,520	552,485	546,720	987,489
Southern Rhodesia ...	1,040,278	1,085,314	1,025,783	1,512,400
Overseas (direct)	1,217,708	1,265,161	719,450	1,504,513
	£2,884,506	£2,902,960	£2,291,953	£4,004,402

The following table gives the values of the principal classes of imports during the years 1933 to 1937:—

Class.	*1933.*	*1934.*	*1935.*	*1936.*	*1937.*
	£	£	£	£	£
Animals (living)	367	13,845	9,015	11,697	23,493
Foodstuffs, etc.	197,810	229,444	218,662	193,200	267,348
Ales, spirits and wines, etc. (potable).	74,475	88,052	93,306	83,805	112,190
Spirits (non-potable) ...	1,400	1,928	1,846	1,642	1,910
Tobacco manufactures ...	53,432	62,071	63,393	58,473	71,286
Textiles, apparel, yarns and fibres.	308,423	350,353	411,109	370,825	546,896
Metals, metal manufactures, machinery and vehicles.	486,546	1,187,340	1,210,149	680,278	1,680,621
Minerals, earthenware, glassware and cement.	176,292	247,218	253,649	236,622	373,682
Oils, waxes, resins, paints and varnishes.	126,318	137,597	140,151	144,982	194,448
Drugs, chemicals and fertilizers.	64,175	85,588	76,614	72,133	96,677
Leather and rubber, and manufactures thereof.	58,854	78,403	64,575	63,031	97,081
Wood, cane, wicker, and manufactures thereof.	48,092	71,749	48,009	53,927	110,172
Books, paper and stationery.	34,805	38,546	44,300	40,497	50,283
Jewellery, time - pieces, fancy goods, etc.	25,419	28,310	32,773	26,387	36,729
Miscellaneous	275,421	264,062	235,409	254,454	341,586
Total Merchandise ...	£1,931,829	£2,884,506	£2,902,960	£2,291,953	£4,004,402

Exports.

The following table shows the values of exports and re-exports during the years 1934 to 1937:—

	1934.	1935.	1936.	1937.
	£	£	£	£
Exports	4,399,990	4,671,895	5,936,692	11,903,712
Re-exports	130,943	106,709	100,924	117,830
Total Merchandise ...	4,530,933	4,778,604	6,037,616	12,021,542
Specie	9,462	23,959	7,521	9,057
Grand Totals	£4,540,354	£4,802,563	£6,045,137	£12,030,599

In the following table a comparison is given between the values of exports and re-exports to the Union of South Africa, Southern Rhodesia, the United Kingdom and other Empire Countries and to foreign countries during the years 1934 to 1937:—

Exports.	1934.	1935.	1936.	1937.
	£	£	£	£
To Union of South Africa ...	69,580	162,300	294,217	323,649
To Southern Rhodesia ...	20,210	26,768	53,294	79,539
To United Kingdom and other Empire countries.	1,947,989	2,470,154	3,208,822	6,029,711
To Foreign Countries ...	2,362,211	2,012,673	2,380,359	5,470,813
Total Exports	£4,399,990	£4,671,895	£5,936,692	£11,903,712

Re-exports.	1934.	1935.	1936.	1937.
	£	£	£	£
To Union of South Africa ...	37,870	27,474	29,170	27,725
To Southern Rhodesia ...	63,879	66,772	61,905	71,967
To United Kingdom and other Empire countries.	19,211	1,693	2,469	8,784
To Foreign countries	9,983	10,770	7,380	9,354
Total Re-exports ...	£130,943	£106,709	£100,924	£117,830

The values of the principal articles exported during the years 1933 to 1937 are given below:—

Article.	1933.	1934.	1935.	1936.	1937.
	£	£	£	£	£
Copper	3,114,618	3,705,783	3,976,504	4,994,716	10,704,078
Cobalt	39,008	191,755	132,646	152,056	292,328
Zinc...	275,834	330,454	295,092	334,621	377,991
Vanadium	19,638	37,224	81,395	125,571	157,081
Gold	6,833	6,351	10,057*	22,962*	28,983
Tobacco (leaf) ...	35,196	41,669	43,220	37,658	41,784
Wood (unmanufactured).	11,626	20,891	25,931	31,425	39,791
Wood (manufactured).	46,829	42,215	78,712	111,203	107,904
Hides and skins ...	8,314	9,946	10,613	16,493	23,124

* Value calculated at prices ruling at time of export.

For Customs purposes Northern Rhodesia is divided into two zones known as the Congo and Zambesi Basins. The Congo Basin consists approximately of all the territory north of a line drawn from Fife in the north-east to the south-east corner of the Katanga pedicle of the Belgian Congo. The remainder of the territory to the west and the south of this line constitutes the Zambesi Basin, which is by far the more important part of the territory industrially, more than 90 per cent. of the total trade being transacted within it.

The Zambesi Basin is subject to Customs Agreements with Southern Rhodesia, the Union of South Africa, and the Bechuanaland Protectorate, Basutoland, and Swaziland. The agreements provide in general for considerable rebates upon interchange of local manufactures, and for free interchange of raw products with limitation in the case of leaf tobacco.

The part of the territory in the Congo Basin is within the area covered by the Berlin Conference of 1885, and under the terms of the Convention revising the General Act and Declaration of Brussels of the 2nd July, 1890, signed at St. Germain-en-Laye on the 10th September, 1919, commercial equality within this area must be granted to nationals of the Signatory Powers and of States Members of the League of Nations which adhere to the Convention. This part of the territory is therefore excluded from the terms of the Customs Agreements mentioned in the preceding paragraph.

In the Zambesi Basin, Empire preference is given in the case of the following classes of goods, which are mainly liable to *ad valorem* rates of duty:—clothing, blankets and rugs, cotton piece-goods, motor cars and all articles usually imported for household and native use, the duty on Empire products being in almost every instance 10 per cent. or 12 per cent., and the duty on foreign products varying from 15 to 30 per cent. In the case of cotton and silk piece-goods, shirts, singlets, and rubber shoes from foreign countries, the tariff provides for alternative specific rates of duty if such should be greater. Agricultural, electrical, mining, and other industrial machinery, pipes and piping, metals and metal manufactures imported for industrial purposes, if of Empire manufacture, are free of duty, and if of foreign origin are subject to an *ad valorem* duty of 5 per cent., except in the case of foreign electrical machinery, on which the duty is 15 per cent. *ad valorem*.

Specific rates of duty apply to practically all imported foodstuffs, lubricating oils, paraffin and cement, and to spirits, wines, beer, and tobacco. Upon the latter items, apart from rum, no preference is granted except under the terms of the Customs Agreements with the neighbouring territories in the south, but varying rates of preference are granted to foodstuffs of Empire origin.

The Customs Tariff contains two scales of duty:—

Scale " A "—in respect of goods not entitled to preferential treatment;

Scale " B "—in respect of goods from the United Kingdom and British Possessions, and all goods imported into the Congo Basin area.

PORTS OF ENTRY.

The following are the ports of entry into and exit from Northern Rhodesia:—Lusaka, Ndola, Livingstone, Fort Jameson, Broken Hill (free warehousing ports), Abercorn, Solwezi, Fort Rosebery, Chingola, Kawambwa, Mpika, Balovale, Mwinilunga, Isoka, Chiengi, Feira, Kazangula, Lundazi and Mufulira.

CUSTOMS AGREEMENTS.

The terms of the Agreement with the Union of South Africa provide for the transfer of Union rates of duty or Northern Rhodesia rates of duty, if these are higher, when overseas goods are removed from the Union to Northern Rhodesia, and for the transfer of Union rates of duty when overseas goods are removed from Northern Rhodesia to the Union. In respect of local manufactures (with certain exceptions) removed between the two territories, Government payments of 15 per cent. of the export value of foodstuffs and 10 per cent. of the export value of other manufactures are made. As the result of an amendment made in 1936 no Government payment is now made on electrolytic copper and zinc produced in Northern Rhodesia and removed to the Union. The other exceptions are manufactured tobacco, beer, wines and spirits, which are directly taxed at tariff rates subject to the following rebates:—manufactured tobacco, 75 per cent.; beer and wines, 50 per cent.; spirits, 25 per cent. Free interchange of unmanufactured goods is provided for, but Northern Rhodesia leaf tobacco exported to the Union is limited to 400,000 lb. per annum free of duty and Union leaf tobacco imported into Northern Rhodesia is limited to 50,000 lb. free of duty.

The terms of the Agreement with Southern Rhodesia provide for a uniform tariff so far as possible and the transfer of duty at whichever is the higher rate when imported goods are removed from one territory to the other. In respect of local manufactures removed between the two territories, Government payments of 12 per cent. of the export value of foodstuffs and 9 per cent. of the export value of all other local manufactures are transferred, except in the case of beer, wines and spirits, which are directly taxed at tariff rates subject to the following rebates:—beer and wines, 50 per cent.; spirits, 25 per cent. Cigarettes and tobacco of Southern Rhodesia or Northern Rhodesia manufacture are not liable to import rates upon removal from one territory to the other, but are subject to a transferred payment of the appropriate excise duties. Free interchange of unmanufactured goods is provided for.

VIII.—NATIVE LABOUR.

It is estimated that there are 279,949 able-bodied males domiciled in Northern Rhodesia and of this number approximately 134,382 were in employment at the end of the year—66,606 within the territory and 67,776 outside. Of those working within the territory, 22,500 were employed on mines, about 10,000 as domestic servants and 9,000 on farms. Of those employed outside the territory about 46,000 were in Southern Rhodesia, 11,615 in Tanganyika Territory and 10,161 in the Belgian Congo, the Union of South Africa and elsewhere. The main labour supplying areas are the Northern Province, the Eastern Province and the Barotse Province.

The average wage paid to unskilled labourers varies from 5s. a month for agricultural labourers to about 45s. a month for underground miners. In addition to wages employers are required by law to provide adequate housing and good and sufficient rations.

A Migrant Labour Agreement between Northern Rhodesia, Southern Rhodesia and Nyasaland came into force on 4th June for a minimum period of four years. The main objects of the Agreement are to regulate the flow of labour so that the requirements of the three territories shall be met as far as possible to ensure the comfort and well-being of the labourers both when travelling and at work, and to ensure the regular return of the labourers and some of their earnings to their homes.

In December the Governors of Northern Rhodesia, Southern Rhodesia and Nyasaland met a representative of the Transvaal Chamber of Mines at Salisbury and it was then decided, *inter alia,* that the experiment of employing 1,500 natives of Northern Rhodesia on the mines of the Witwatersrand, which started in 1936, should be continued for a second year and that in the meantime no recruiting for the Johannesburg Mines should be permitted in Northern Rhodesia.

There is at present no Labour Department in the territory, but all matters of importance relating to native labour are referred for advice to a Native Industrial Labour Advisory Board consisting of both officials and unofficials. It is proposed to set up a Labour Department in the near future, and Major G. St. J. Orde Browne, O.B.E., arrived in October to advise on the formation of this department and on native labour matters generally.

IX.—WAGES AND COST OF LIVING.

The cost of living for Europeans is governed mainly by the cost of transport. Transport charges, even to places on the railway, add considerably to the price of commodities. When transport by motor or other means is necessary, as it is for places off the line of rail, the average price is still further increased.

The average price of various commodities on the line of rail is as follows:—

	Average. *s.*	*d.*
Bread, per lb. loaf		8
Local flour (1st grade), per lb.		4
Patna rice, per lb.		4
Mazawattee tea, per lb.	3	0
Sugar (white granulated), per lb.		4
Coffee (average, loose and tinned), per lb.	1	10
Butter, per lb.	2	0
Bacon, per lb.	2	0
Eggs (European farms), per doz.	2	0
Milk, per pint		4
Beef, per lb.		9
Soap (Sunlight), per packet	1	6
Kerosene, tin of 4 gallons	10	0
Motor spirit (Shell), per gallon	3	0

Income tax on individuals is charged as follows:—
For every

	s.	*d.*
£1 of the first £100 of chargeable income		6
£1 of the next £100 of chargeable income	1	0
£1 of the next £100 of chargeable income	1	6
£1 of the next £100 of chargeable income	2	0
£1 of the next £100 of chargeable income	2	6
£1 in excess of £500 of chargeable income	3	0

The following deductions are allowed:—

Personal, £300.

For a wife, £420.

For children, £100 each.

For a dependant the amount expended, not exceeding £100.

For life insurance premiums paid, not exceeding one-sixth of the income remaining after deducting the personal deduction.

An individual who is a non-resident and not a British subject is eligible for the personal deduction of £300 only. Company income tax is at the rate of 4s. in the pound. Relief is allowed in respect of United Kingdom and Empire income tax.

X.—EDUCATION AND WELFARE INSTITUTIONS.

For the education of European children there were in 1937 controlled schools at Livingstone, Choma, Mazabuka, Lusaka, Broken Hill, Ndola, Luanshya, Kitwe and Mufulira, offering primary education up to Standard VII, with the additional subjects, Latin, French, Algebra, Geometry and Science in Standards VI and VII. There were controlled schools at Fort Jameson (for the third and fourth Quarters), Mulendema and Silver Rest offering primary education up to Standard V. All these schools were under Government management, the tuition fees varying from 7s. 6d. to £1 17s. 6d. per quarter.

The following schools, although privately managed, were controlled by Government:—

The Convent School, Broken Hill.	Offering education up to the standard of the South African Matriculation Examination.
The Convent School, Ndola	Offering primary education up to Standard V.
Mulobesi School ...	
Sakeji School	
Chomba School ...	
The Convent School, Livingstone.	Offering primary education up to Standard IV.

During the year a number of small uncontrolled schools also remained open.

Boarding accommodation was available for girls at the Beit School, Choma, and for boys at the Codrington School, Mazabuka, the boarding fees being £12 10s. per quarter in each case; and for boys and girls at Lusaka School, the boarding fees being £9 per quarter. All three of these schools were under Government management. The Convent Schools at Broken Hill and Ndola, and Sakeji School, all under private management, also provided boarding accommodation.

Fifty teachers were employed in the controlled schools under Government management, the enrolment at the end of 1937 being 959. At the same time, 204 children were attending controlled schools under private management and 40 were receiving education through the Southern Rhodesia correspondence classes.

Education for Africans in Northern Rhodesia is still mainly provided through the agency of mission societies. These, however, receive financial support from Government and professional guidance from the inspecting officers of the Native Education Department. Nineteen of the missionary societies operating in the country maintain village elementary schools, boys and girls boarding schools, and teacher-training institutions recognized as eligible for Government grants. A total sum of £14,961 was directly distributed among them in recurrent grants in 1937. This amount included a grant of £250 from the Carnegie Corporation and £1,677 from the Barotse Trust Fund, the latter being distributed among the societies carrying on educational work in Barotseland.

Recurrent expenditure on Native education during the year 1937 was as follows:—

	£
From Government revenue	28,705
Carnegie Corporation	250
Barotse Trust Fund	1,677
Total	£30,632

Since 1929 a total sum of £13,800, generously granted by the Beit Railway Trustees, has been spent on building and equipping the Jeanes, Normal, Middle and Elementary Schools at Mazabuka. In connection with the establishment of the Native Trades School at Lusaka, buildings were erected between 1932 and 1934 by means of appropriations from Loan Funds.

Owing to the growth of an inspectorate during the past few years, it is becoming possible to carry out more frequent inspections and to ensure that the moneys paid by Government are being utilized satisfactorily and that a steady improvement in the standard of education is being maintained.

Eighty-six African teachers passed the written part of the Government examinations during the year, making a total of 764 Africans who have passed this test. A total of 340 have been given certificates after inspection of their practical work.

Annual returns show that the Government and mission societies employed on 31st December, 1937, some 1,906 teachers in 2,067 recognised and ungraded schools. The majority of these teachers must still be classed as catechists or evangelists in charge of so-called bush schools and have never had an adequate course of professional training. Approximately 602 trained teachers were in the service of missions at the end of the year and qualified for Government grants-in-aid.

A hundred and one European teachers and technical instructors were engaged in Native education during the year. Fourteen Europeans and 32 African teachers and instructors, including the staff of the Barotse National School, comprised the staff of the Native Education Department.

Returns, which must be regarded as approximate, show that 21,593 boys and 8,430 girls attended recognized schools, while roughly 74,149 children attended ungraded schools. It is estimated that there are about 300,000 children of school age in Northern Rhodesia.

The foregoing figures give some idea of the magnitude of the task to which Government and missions are devoting themselves. The Jeanes Training School, established by Government at Mazabuka, is an important and effective agent in the work. At present there are 23 selected mission teachers being trained as Jeanes teachers. Their wives also receive training in hygiene, child welfare, and other domestic subjects.

At Mbereshi (London Missionary Society) women teachers are being trained along Jeanes lines. A grant of £350 was given in 1937 towards the cost of their training, part being borne by Government and part by the Carnegie Corporation. There are 19 girls' boarding schools subsidized by Government, with an enrolment of approximately 800 pupils. Domestic and vocational training is an important feature of the curricula of these girls' schools.

Boys receive training as carpenters, masons, and bricklayers at the Barotse National School, at Mbereshi and to a lesser degree at several other mission stations. The Government trades school for the training of carpenters, masons and bricklayers at Lusaka has 72 apprentices in training.

Government has also established elementary and middle schools at Mazabuka, Ndola and Kasama. The Government Normal School at Mazabuka trains teachers for Government requirements and for the smaller missions which have no training schools of their own.

The proportion of recurrent expenditure (including grants from Trust Funds and Barotse Native Treasury) on Native education to the total expenditure was at the rate of approximately 3·47 per cent. The amount spent per head of native population on Native education was approximately 5·62d., but it must be borne in mind that much the greater part of Native education is carried out by the various missions, and it is impossible to compute with any accuracy what their educational services represent in terms of expenditure. If it were possible to arrive at such a sum, the figure given above would be very largely increased.

XI.—COMMUNICATIONS AND TRANSPORT.

Railways.

The railway from Southern Rhodesia via the Victoria Falls to the Belgian Congo passes through North-Western Rhodesia and branch lines serving the Roan Antelope, Nkana, and Mufulira copper mines radiate from the main line at Ndola. Three through passenger trains, on which dining-cars and sleeping accommodation are available, run weekly in each direction over the main line. In addition, local mixed trains with second-class and native accommodation run daily in each direction between

Livingstone and Ndola. No dining-cars are attached to these latter trains, but stops are made at convenient places sufficiently long to allow of passengers taking a meal at the local hotel. In addition to these a regular goods train service is in operation for the conveyance of goods and mineral traffic, and loads of 1,300 tons in the northward direction are regularly obtained over long sections by these latter trains.

River Transport.

Transport to stations in the Barotse valley is by barge along the Zambesi river, but for rapid transport light aeroplanes are now being used to Mongu, where there is a Government aerodrome. There is no sleeping accommodation on the barges, which are made fast to the river bank for the night whilst travellers camp on shore. The journey up the Zambesi from Livingstone to Mongu by barge takes from twelve days to three weeks: by air it is effected in three hours.

Roads.

The roads of the territory are of earth with the exception of the portion of the Great North Road which runs from the Victoria Falls to Livingstone—a distance of some eight miles—and a stretch of two miles in Lusaka, which are bitumen-surfaced.

The arterial road system consists of three main routes, viz., the Great North Road from Livingstone, which runs adjacent to the railway as far as Kapiri Mposhi (460 miles) where it turns north-east to Abercorn and Mpulungu on Lake Tanganyika, a total distance of 982 miles. The principal towns and Government stations on this route are Kalomo, Choma, Mazabuka, Lusaka, Broken Hill, Mpika, Kasama and Abercorn. At Mpulungu the lake steamer connects with Kigoma on the Tanganyika Railway.

The Congo Border Road branches off from the Great North Road at Kapiri Mposhi and traverses the Copper Belt, Bwana Mkubwa, Ndola, Nkana, Nchanga and Solwezi being the principal towns through which it passes. From Solwezi the road turns southward and passing through Kasempa and Mumbwa joins the Great North Road again 45 miles south of Broken Hill. The length of the Congo Border Road is 650 miles.

The Great East Road leaves the Great North Road at Lusaka and proceeds to Fort Jameson and the Nyasaland border, where it connects up with the Nyasaland road system. The distance to Fort Jameson is 392 miles and this town is twelve miles from the Nyasaland border.

In addition to the main routes mentioned above, there are 4,950 miles of secondary roads which connect settled areas and Government stations throughout the greater part of the territory.

The roads generally are passable for traffic during nine months of the year, but during the rainy season, from December to April, the traffic is restricted to 7,000 lb. gross loading on some roads and 5,000 lb. on others. The arterial roads have, with the exception of the Congo Border Road, been bridged and culverted with permanent structures. On other roads, waterways, etc., are crossed by bush timber bridges. A number of pontoons are provided at other major river crossings, for the use of which Government charges a moderate fee. Travellers can be accommodated at hotels and rest-houses at suitable points on all the arterial road systems.

The main road reconstruction programme was resumed towards the end of the year. Work started just south of Broken Hill and was in progress between Kapiri Mposhi and Bwana Mkubwa at the end of the year. In the Mining Area the earth road from Nkana to Mufulira was completed and a start was made on a new road to Nchanga. A Pioneer track was completed between Mumbwa and Mongu with a ferry across the Kafue, thus establishing road connection between the railway line and the administrative centre of Barotseland. Hitherto the only alternative methods of reaching Mongu have been by air in three hours from Lusaka or by water in three weeks. In the near future it should be possible to complete the journey in three days by road. A short connecting road near Fort Jameson constructed during the year shortens the distance to Salisbury to 490 miles as compared with 585 miles via Dedza and 720 miles via Blantyre.

Postal.

The year was probably the busiest the Department has ever known and the revenue collected (£64,900) was £20,000 higher than in 1936 and £11,000 higher than the previous peak year of 1931. £10,800 of this revenue came from the sale of Coronation stamps to dealers and philatelists. The total stamp sales amounted to £35,500, an increase of £14,500 on the previous year.

There was a considerable increase in the mail matter handled, both forwarded and received. Figures for the years 1935, 1936 and 1937 are as follows:—

	1935.	*1936.*	*1937.*
Posted—Inland ...	1,736,982	1,563,736	1,560,208
External ...	1,776,580	1,280,766	1,779,388
Received—External ...	3,427,164	2,777,788	4,999,982
Totals	6,940,726	5,622,290	8,339,578

Money orders and postal orders issued during the year amounted to £107,900, compared with £91,400 in 1936, and paid orders increased from £42,600 to £48,300. The number of cash on delivery parcels increased from 11,900 to 14,200 and the total amount of trade charges collected and remitted to the senders rose from £22,100 to £27,000.

There is a daily mail service between offices on the line of rail, while offices off the line of rail are served either by motor vehicle or by carriers at least once weekly. The service to Barotseland is carried mainly by barge on the Zambesi River. Mails are exchanged with Southern Rhodesia by rail daily and there is also an air service twice a week from Lusaka to Salisbury. Nyasaland has a service by road from Fort Jameson twice a week and a service by air for first-class mail from Lusaka via Salisbury also twice a week. Other mails are carried by rail via Salisbury and Beira. To South Africa there is a service by rail three times a week and by air twice a week via Beira as part of the Empire Air Mail Scheme. There is also a surcharged air service once a week by South African Airways. Mails to Great Britain, which up to July, 1937, had been carried once a week by sea from Cape Town, are now taken by the Empire Air Mail and all letter mails to England and British countries between Northern Rhodesia and England are now conveyed by air three times a week (twice via Beira and once by direct machine from Lusaka to Kisumu). The sea route is still used for printed papers. Parcel mails from Great Britain are received via Cape Town or via Lobito Bay.

Telegraphs.

The main telegraph and trunk telephone route follows the track of the railway line from the Victoria Falls to Ndola. From Ndola there are separate branches to Luanshya and to Nkana and Mufulira. The telegraph line only is continued from Ndola to the Congo Border. Fort Jameson is connected with the Nyasaland telegraph system and Kasama and Abercorn with the Tanganyika system. There was a large increase in telegraph traffic handled during the year and the gross receipts were £12,500 as compared with £9,700 in the previous year, while the net revenue increased from £7,600 to £10,900. The following are details of the last three years:—

	1935.	1936.	1937.
	£	£	£
Paid telegrams	50,964	45,088	55,400
Official telegrams ...	16,457	16,256	17,300
Net revenue	8,229	7,593	10,900

Telephones.

Automatic telephone exchanges have been established at Lusaka, Broken Hill, Livingstone, Luanshya, Mazabuka and Ndola. The Rhokana Corporation were given a licence during the year to extend their private system as a public system to the new township of Kitwe. Private exchanges are operated under licence by the Roan Antelope Copper Mine at Luanshya and by the Mufulira Mine at Mufulira. All these exchanges, including the private ones, have facilities for trunk communication. Call offices provide trunk communication during certain periods of the day and are established at the majority of Post Offices on the main route.

Telephone Revenue.

	1935. £	*1936.* £	*1937.* £
Exchange rentals	3,841	4,326	4,500
Call Office and trunk fees ...	3,629	3,758	4,500
Miscellaneous...	121	151	150
Totals	£7,591	£8,235	£9,150

Radio Communication.

Internal point to point communication for public traffic is provided between Abercorn, Fort Jameson, Mpika and Broken Hill, the latter station being on the line of rail and acting as the transmitting station between the land lines and radio stations. Communication is principally made on short wave lengths. The Broken Hill station also communicates with stations in Tanganyika, Southern Rhodesia and the Union of South Africa.

Aeronautical Services.

The stations at Mpika and Broken Hill are equipped with transmitters for communication with aircraft in flight and watch is kept in connection with the Imperial Airways England—South Africa air route.

There is also a short-wave station at Livingstone, which is used for aeronautical services in connection with the South African Airways flights between South Africa and Kisumu.

Civil Aviation.

The following air routes have been established in Northern Rhodesia and pilots of all aircraft, especially those which are single-engined, are advised in the interests of safety to follow them when flying between the places mentioned:—

(1) Livingstone to Balovale (or intermediate stations) via Sesheke, Njoko, Sioma, Senanga, and Mongu.

(2) Livingstone to Ndola (or intermediate stations) via Kalomo, Choma, Mazabuka, Lusaka, Chisamba, Broken Hill and Kapiri Mposhi.

(3) Lusaka to Fort Jameson via Nyangwena, Rufunsa, Nyimba and Sasare.

(4) Broken Hill to Mbeya (or intermediate stations) via Mtuga, Ndabala, Kanona (for Serenje) Kalonje, Mpika, Shiwa Ngandu, Chinsali, Isoka and Mwenimpanza.

(5) Broken Hill to Abercorn via Mtuga, Ndabala, Kanona, Kalonje, Mpika, Kasama and Rosa.

(6) Ndola to Mbeya (or intermediate stations) via Kapiri Mposhi, Mtuga, Ndabala, Kanona, Kalonje, Mpika, Shiwa Ngandu, Chinsali, Isoka and Mwenimpanza.

(7) Ndola to Abercorn via Kapiri Mposhi, Mtuga, Ndabala, Kanona, Kalonje, Mpika, Kasama and Rosa.

(8) Abercorn to any line of rail station, via Rosa, Kasama, Mpika, Kalonje, Kanona, Ndabala, Mtuga, Broken Hill and then to the required destination via the railway line.

(9) Lusaka to Mumbwa, Broken Hill to Mumbwa. Mazabuka to Mumbwa.

Aerodromes and landing grounds are maintained in good condition in the more settled areas, but it is not always possible to maintain distant emergency landing grounds to the same extent, although every endeavour is made to do so.

Airways.

The service of Imperial Airways operated until the 4th July. From the 4th July, with the opening of the Empire Air Mail route, the Wilson Airways of Nairobi commenced operating a service between Lusaka and Kisumu twice a week. The Rhodesian and Nyasaland Airways, Ltd., also started operating a service on the Empire Air Mail route between Lusaka and Beira twice a week, making a complete land link between Kisumu and Beira with the Imperial Airways Flying Boat Service to Durban and Southampton. South African Airways started operating a weekly service between Johannesburg via Lusaka to Kisumu. Regue Air Afrique is a new company formed during the year, which operates a weekly service between Elizabethville and Madagascar via Broken Hill, superseding the French Air Service.

The Flying Club (founded in May, 1935) has its headquarters at Lusaka, and branches are maintained at Livingstone, Broken Hill, and Nkana. The Club possess one aircraft, a Hornet Moth.

XII.—BANKING, CURRENCY AND WEIGHTS AND MEASURES.

The Standard Bank of South Africa, Limited, and Barclays Bank (Dominion, Colonial and Overseas) operate in the territory, with branches or agencies at the more important centres. The total deposits at those banks at 31st December, 1937, amounted to £1,170,016, as compared with £902,212 at the end of the previous year.

The Post Office Savings Bank deposits amounted to £41,039 at 31st December, 1937, as compared with £33,283 at the end of the previous year.

There is no Land or Agricultural Bank in the territory.

The Bank Notes and Coinage Ordinance, 1931, Bank Notes and Coinage (Amendment) Ordinance, 1934, and Proclamation No. 1 of 1935 prescribe as legal tender throughout the territory (*a*) Bank of England notes, (*b*) bank-notes issued by the Standard Bank of South Africa, Limited, and Barclays Bank (Dominion, Colonial and Overseas) at their offices at Salisbury, Southern Rhodesia, (*c*) the standard coinage in use in England, (*d*) silver coinage of Southern Rhodesia for any amount not exceeding £2 sterling value and (*e*) cupro-nickel coinage of Southern Rhodesia for any amount not exceeding one shilling in value. The enactment of the first Ordinance on the 12th October, 1931, marked the departure of Northern Rhodesia from the gold standard of currency.

The English standards of weights and measures are in force.

XIII.—PUBLIC WORKS.

The following buildings were under construction during the year:—

Lusaka.—Three small cottages were constructed for junior married officers.

Nkana (*Kitwe*).—Nine bungalows and two sets of single quarters were approaching completion at the end of the year. The houses were of the types designed by the Engineering Department of the Rhokana Corporation and built by contract under its supervision.

Mufulira.—By a similar arrangement eight houses of these types were constructed for Government at Mufulira.

Other Works.

Kafue Bridge.—This crosses the Kafue River on the new road from Nkana to Mufulira. It provides a single track width of 10 ft. and crosses the river on two shore spans of 50 ft. and two central spans of 100 ft. The steel structure of each span consists of 2 N-type Lattice Girder spaced at 12 ft. centres connected by cross joists on which rests a reinforced concrete deck 9 in. thick. It is designed to carry Crown Agents Heavy Loading. The piers and abutments were all founded on rock and constructed in reinforced concrete.

Hangar: Lusaka.—The need for Hangar accommodation at the Air Port at Lusaka was met on the advice of the Air Ministry by transferring an existing Hangar from Broken Hill, and re-erecting it there with an extra bay. The leading dimensions now are 120 ft. by 125 ft. 6 in. by 30 ft. in height, and a concrete floor and apron have been provided.

XIV.—JUSTICE, POLICE AND PRISONS.

Justice.

Justice is administered by the High Court of Northern Rhodesia and by the Magistrates' Courts, subject to appeal to and review by the High Court.

During the year the High Court dealt with 140 civil matters as against 139 in the preceding year, and heard four actions and two appeals. Two petitions in bankruptcy were presented. Sessions were held in May at points along the line of railway. Thirty-seven criminal cases came before the Court, exclusive of reviews of judgments in the lower Courts, which numbered 153. Of these, 115 convictions involving one or more persons were approved, 15 quashed, 22 altered, and the remaining one case was referred to the High Court on a point of law.

Native Courts.

A Native Courts Ordinance was passed in 1936 and applies to the whole of the territory, except Barotseland, which has a Special Ordinance.

The present Native Courts Ordinance is more detailed than the former one, and deals with many matters which were previously provided for by rules. Like the Native Authority Ordinance, it emphasizes that everything shall be done in accordance with native law and custom. The Courts must be constituted in accordance with native law and custom, and are then recognized by the Governor, who lays down their powers and jurisdiction by Warrant. Provision is also made for the institution of Native Court prisons and for Native Courts of Appeal, as well as appeals to the Courts of District Officers and the High Court.

The Barotse Native Courts Ordinance is similar, and was enacted in accordance with an agreement entered into between the Crown and the Paramount Chief. The construction and jurisdiction of the Courts is as laid down in the agreement. In criminal cases there is an appeal to the Provincial Commissioner from the Native Court of Appeal, but in civil cases the appeal lies to the High Court only.

The general conduct of Native Courts continues to be satisfactory.

Excluding the Barotse Province, 6,522 criminal cases were heard during the year by Native Courts, and 7,081 civil cases.

Police.

The Police prosecuted a total number of 7,058 cases during the year 1937, a decrease of 4,065 cases on the figures for 1936. There was a decrease of 15 convictions against Europeans under the Penal Code and a decrease of 204 convictions under local laws. Convictions against natives under the Penal Code showed a decrease of 78 and under local laws a decrease of 3,048. The following is a list of persons convicted of the more serious offences during 1937:—

			Totals.	
Crime.	*Europeans.*	*Natives.*	*1937.*	*1936.*
Affray	1	21	22	55
Arson	—	7	7	15
Assault, common	54	147	201	151
Assault, O.A.B.H.	18	184	202	175
Assault on police	—	7	7	17
Burglary	—	72	72	134
Extortion	—	—	—	2
Forgery	2	28	30	32
Fraud	—	—	—	23
Housebreaking	—	116	116	154
Indecent assault on a female	1	12	13	8
Indecently insulting a female	—	3	3	4
Manslaughter...	—	12	12	13
Murder	1	19	20	18
Attempted murder	—	8	8	8
Obtaining goods by false pretences.	2	16	18	8
Perjury	—	5	5	2
Rape and attempted rape ...	—	5	5	18
Receiving	—	40	40	41
Robbery	—	3	3	5
Stealing and theft, all forms	13	889	902	1,011
Unlawful wounding	1	15	16	20
Uttering	2	22	24	26

The foregoing figures include only those cases taken to court by the police and do not include cases heard by a Magistrate at stations where the police are not posted.

Prisons.

There are six central prisons in the territory, situated at Livingstone, Broken Hill, Kasama, Mongu, Fort Jameson, and Lusaka. In addition to the central prisons there are also 29 local prisons situated at each of the other Government stations.

Committals to all prisons during the year were as follows:—

Livingstone	292
Broken Hill	252
Fort Jameson	79
Kasama	66
Mongu	231
Lusaka	31
All local prisons	4,062
Total	5,013

The daily average of prisoners for all prisons was 1,028. The daily average of sick was 40. There were six executions during the year, and ten deaths from natural causes.

XV.—LEGISLATION.

During the year under review, Sessions of the Legislative Council were held in May and November. Thirty-three Ordinances were enacted, of which 20 were amendments to the existing law.

The more important Ordinances were:—

The Rhodes-Livingstone Institute (No. 1 of 1937).
The Importation of Butter (No. 20 of 1937).
The Markets (No. 21 of 1937).
The Northern Rhodesia Regiment (No. 25 of 1937).
The Shop Assistants (No. 27 of 1937).
The Insurance (No. 33 of 1937).

1. *The Rhodes-Livingstone Institute Ordinance* establishes a Board of Trustees for the preservation of the valuable objects exhibited in the Museum at Livingstone and provides for the control of funds, acquisition of lands and buildings and other purposes in connection with the Institute.

2. *The Importation of Butter Ordinance* is designed to control the importation of butter into the territory in the interests of local producers. To protect consumers, such control is subject to the recommendation of a Board on which producers, manufacturers, retailers and consumers are all represented. The Governor in Council has power to control importations, on the advice of the Board.

3. *The Markets Ordinance* provides for the establishment of native markets to foster native trade and facilitate the exchange of produce. The management and control of markets is in the hands of local authorities in municipalities and townships and of native authorities in tribal areas.

4. *The Northern Rhodesia Regiment Ordinance* replaces Chapter 46 of the Revised Edition. Owing to the reorganization of the Regiment, the existing law was found to be inadequate. The principal alteration in the new Ordinance is that, in future, soldiers will be enlisted for a period of years with the Colours and then a period of years with the Reserve.

5. *The Shop Assistants Ordinance* was enacted at the request of the Elected Members of the Legislative Council. It closely follows the law of Southern Rhodesia, the chief objects being to limit the hours of employment of shop assistants and to regulate their conditions of leave.

0. *The Insurance Ordinance.*—Prior to the passing of this Ordinance there was no law controlling the operation of insurance companies in the territory. Provision is now made for the registration and licensing of companies, and it is an offence for policies to be issued in the territory by any person or company which has not been duly licensed, and by further providing that all benefits must be payable in the territory.

XVI.—PUBLIC FINANCE AND TAXATION.

The revenue and expenditure for the past nine years have been:—

		Expenditure.		
Year.	*Revenue.*	*Recurrent.*	*Extra-ordinary.*	*Total Expenditure.*
	£	£	£	£
1929–30 ...	672,289	532,367	22,160	554,527
1930–31 ...	830,254	668,083	36,903	704,986
1931–32 ...	856,376	793,798	26,258	820,056
1932 ..	649,538	777,290	13,216	790,506
1933 .	718,283	773,985	4,894	778,879
1934 ...	693,337	710,774	2,129	712,903
1935 ...	833,484	780,930	25,499	806,429
1936 ...	863,255	836,174	51,243	887,417
1937 ...	981,894	895,089	14,163	909,252

These figures exclude repayments to the Imperial Exchequer of grants-in-aid received in 1924-5 and 1925-6, and the loan of £240,000 received from the Colonial Development Fund and lent to the Rhokana Corporation in 1934.

Loan expenditure on capital development amounted to:—

£566,801 at 31st March, 1931.
£1,216,681 at 31st March, 1932.
£1,475,130 at 31st December, 1932.
£1,821,123 at 31st December, 1933.
£1,991,387 at 31st December, 1934.
£2,159,826 at 31st December, 1935.
£2,190,402 at 31st December, 1936.
£2,211,112 at 31st December, 1937.

The public debt consists of £1,250,000 5 per cent. inscribed stock 1950-70 issued in 1932 and £1,097,000 3½ per cent. inscribed stock 1955-65 issued in 1933.

The assets of the territory at the 31st December, 1937, consisted of:—

	£
Cash	220,475
Investments	91,380
Advances pending the receipt of grants from Beit Railway Trust.	2,888
Sundry debtors	60,833
Stores	48,681
Total	£424,257

The liabilities were:—

	£
Post Office Savings Bank	40,618
Native Reserves Fund	14,597
Sundry creditors	108,635
Northern Rhodesia 3½ per cent. Loan, 1955–65, unexpended balance.	34,862
Seigniorage Reserve	5,039
Reserve Fund	30,000
Excess of assets over liabilities	190,506
Total	£424,257

The main headings of taxation and yields during 1937 were as follows:—

	£
Licences	55,226
Native Tax	114,397
Customs and Excise Duties...	331,982
Income Tax	260,182

Licence fees are principally derived from trading, vehicles, arms, shooting of game, sale of liquor, and prospecting for minerals.

The annual native tax rates and the yields in 1937 are as follows:—

	£
Barotse Province (7s. 6d.)	21,382
Other Provinces (from 7s. 6d. to 15s. according to district).	93,015
Total	£114,397

All male natives are liable to pay one tax annually if they have reached eighteen years of age and are not indigent by reason of age, disease or such other cause as the District Officer may accept. Women and children are not liable and there is no tax on additional huts or on plural wives. It is not the practice to enforce payment on local natives who have been absent from the territory for periods exceeding twelve months if they are able to produce a tax receipt from an adjoining territory for that period and if they have not cultivated lands locally. The persons liable for tax are recorded in registers compiled under the supervision of District Officers. Collection is direct by officials of the Government and not by Native Authorities. Recovery for default is by distress through the Courts. The tax may be accepted in grain or stock or other produce at the discretion of the District Officer, but the practice is rare. Thirty per cent. of the Barotse tax is paid to a Trust Fund and applied directly to expenditure on native interests in the Barotse area.

APPENDIX.

PUBLICATIONS OF GENERAL INTEREST RELATING TO NORTHERN RHODESIA.

Expedition to the Zambesi and Its Discovery of Lakes Shirwa and Nyasa. By D. and C. Livingstone. (John Murray, London. 1865. 21s.)

The Lands of the Cazembe. Translation of Dr. Lacerda's diaries and information about Portuguese expeditions. By Sir Richard Burton. Published by the Royal Geographical Society. (John Murray, London. 1873.)

Livingstone and the Exploration of Central Africa. By Sir H. H. Johnston. (Phillip & Son, London. 1894. 4s. 6d.)

On the Threshold of Central Africa. By F. Coillard. (Hodder & Stoughton, London. 1897. 15s.) Contains an account of the social and political status of the Natives.

Exploration and Hunting in Central Africa. By A. St. H. Gibbons. (Methuen & Co., London. 1898. 15s.) Contains a full, careful description of the Upper Zambesi, and an account of the subjects of Chief Lewanika.

Au Pays des Ba-Rotsi, Haut-Zambesi. By A. Bertrand. Hachette, Paris. 1898. English Edition, Unwin. 16s.)

In Remotest Barotseland. By Colonel C. Harding. (Hurst & Blackett, London 1905. 10s. 6d.)

The Great Plateau of Northern Rhodesia. By G. Gouldsbury and H. Sheane. (Arnold, London. 1911. 16s.)

The Ila Speaking Peoples of Northern Rhodesia. By Rev. E. W. Smith and Captain A. M. Dale. (MacMillan & Co., London. 1920. 2 vols. 50s.)

In Witch-bound Africa. By F. H. Melland. (Seeley, Service, London. 1923. 21s.)

The Making of Rhodesia. By H. Marshall Hole. (MacMillan & Co., London. 1926. 18s.)

The Way of the White Fields in Rhodesia. By Rev. E. W. Smith. (World Dominion Press, London. 1928. 5s.)

The British in Tropical Africa. By I. L. Evans. (Cambridge University Press. 1929. 12s. 6d.)

The Lambas of Northern Rhodesia. By C. M. Doke. (Harrap, London. 1931. 36s.)

A Faunal Survey of Northern Rhodesia, with Especial Reference to Game, Elephant Control and National Parks, with Maps. By C. R. S. Pitman. (Government Printer, Northern Rhodesia. 1934. 7s. 6d.)

Native Tribes of North-Eastern Rhodesia. By J. C. C. Coxhead. Published by the Royal Anthropological Institute.

Tribal Areas in Northern Rhodesia. By Thomson J. Moffat and W. G. Fairweather. (Government Printer, Northern Rhodesia. 3s.)

Native Tribes of the East Luangwa Province of Northern Rhodesia. By E. M. Lane Poole. (Government Printer, Northern Rhodesia. 1934. 3s.)

British South Africa Company's Reports on the Administration of Rhodesia.

European Education Committee. Report, 1929. (Government Printer, Northern Rhodesia. 2s.)

Present Position of the Agricultural Industry, and the necessity or otherwise of Encouraging Further European Settlement in Agricultural Areas. Report by S. Milligan, 1931. (Government Printer, Northern Rhodesia. 2s.)

Census of 1931. Report of Director. (Government Printer, Northern Rhodesia. 2s. 6d.)

Defence Commission. Report, 1932. (Government Printer, Northern Rhodesia. 2s. 6d.)

Finance Commission. Report, 1932. (Government Printer, Northern Rhodesia. 2s. 6d.)

Agricultural Survey Commission. Report, 1930-1932. (Government Printer, Northern Rhodesia. 7s. 6d.)

Copperbelt Disturbances. Report of Commission of Enquiry, 1935. Cmd. 5009. (H.M. Stationery Office, London. 1s. 6d.) Evidence taken by the Commission. (Government Printer, Northern Rhodesia. 15s.)

Economics of the Cattle Industry in Northern Rhodesia. Memorandum, 1935. (Government Printer, Northern Rhodesia. 1s.)

General Geology of Northern Rhodesia. Notes by J. A. Bancroft and R. A. Pelletier. (Government Printer, Northern Rhodesia. 1s. 6d.)

Blue Book (Annually). (Government Printer, Northern Rhodesia 10s. 6d.)

Annual Reports of the Several Government Departments. (Government Printer, Northern Rhodesia. Various prices.)

The Soils, Vegetation and Agricultural Systems of North-Western Rhodesia: Report of the Ecological Survey by C. G. Trapnell and J. M. Clothier. (Government Printer, Northern Rhodesia. 15s.)

Northern Rhodesia Police: Report of Sir Herbert Dowbiggin, C.M.G. (Government Printer, Northern Rhodesia. 5s.)

Disturbances at Nkana: Report of an Enquiry into the causes of. E. E. Jenkins. (Government Printer, Northern Rhodesia. 2s.)

The Planting of Trees and Shrubs. E. A. T. Dutton, C.B.E. (Government Printer, Northern Rhodesia. 1s. 6d.)

Note.—The Crown Agents for the Colonies, London, are agents for the sale of publications issued by the Northern Rhodesia Government.

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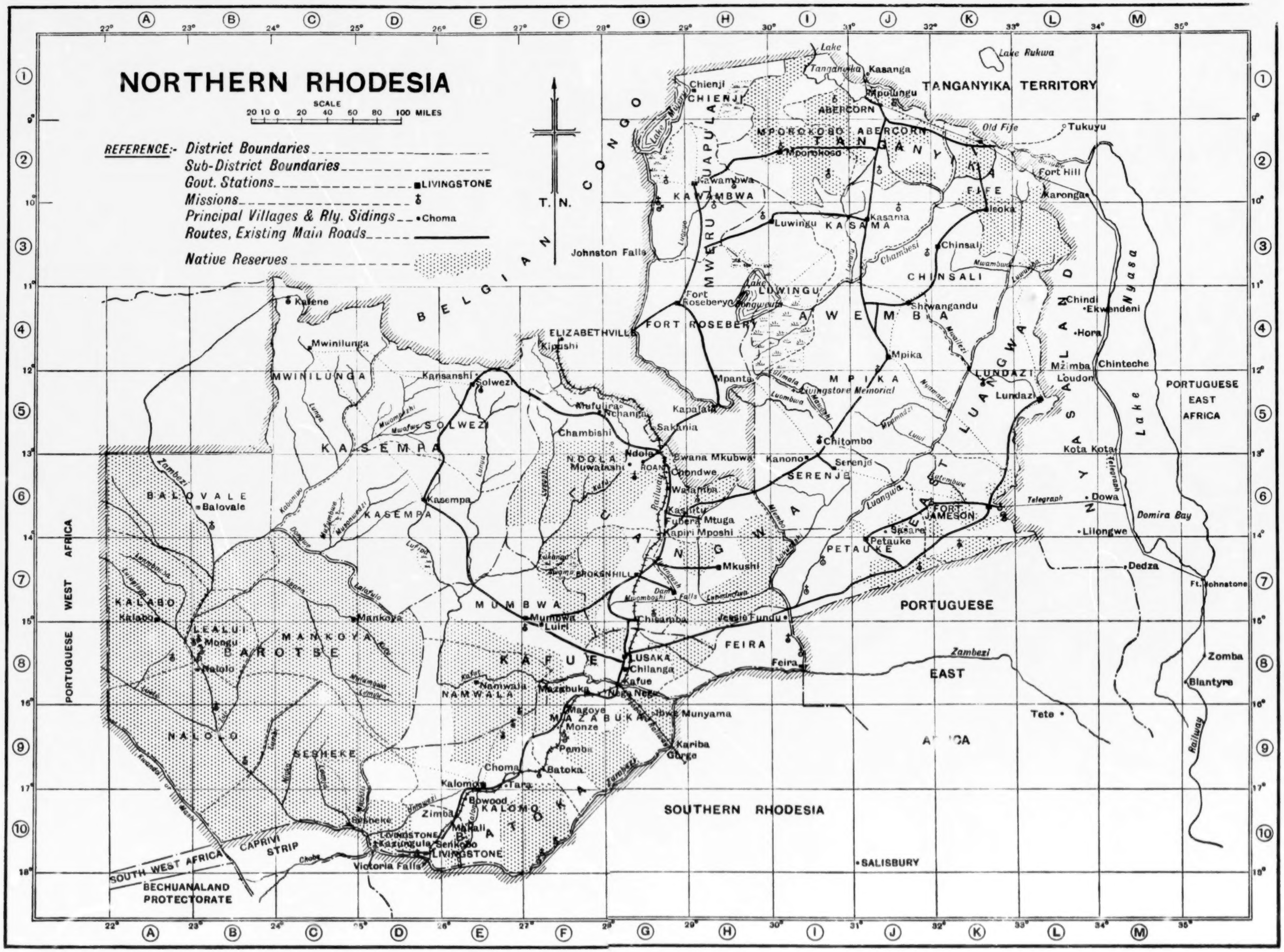
NORTHERN RHODESIA
SCALE
20 10 0 20 40 60 80 100 MILES
REFERENCE:- District Boundaries
Sub-District Boundaries
Govt. Stations LIVINGSTONE
Missions
Principal Villages & Rly. Sidings Choma
Routes, Existing Main Roads
Native Reserves
T. N.
BELGIAN CONGO
TANGANYIKA TERRITORY
Lake Tanganyika
Lake Rukwa
Lake Mweru
Kasanga
Mpulungu
Chienji
CHIENJI
ABERCORN
MPOROKOSO
Mporokoso
TANGANYIKA
Old Fife
Tukuyu
Fort Hill
Karonga
FIFE
Ifeoka
Kawambwa
KAWAMBWA
Luwingu
KASAMA
Kasama
Chinsali
CHINSALI
Chambesi
Johnston Falls
MWERU
LUAPULA
Fort Rosebery
LUWINGU
Lake Bangweulu
FORT ROSEBERY
AWEMBA
Shiwangandu
ELIZABETHVILLE
Kipushi
Mpika
MPIKA
Mpanta
Livingstone Memorial
Kapalala
Sakania
Mufulira
Nchanga
Chambishi
Ndola
NDOLA
Muwatashi
Bwana Mkubwa
Kanono
Serenje
SERENJE
Chitombo
Luangwa
LUNDAZI
Lundazi
EAST LUANGWA
NYASALAND
Chindi
Ekwendeni
Hora
Mzimba
Chinteche
Loudon
Lake Nyasa
PORTUGUESE EAST AFRICA
Kota Kota
Dowa
Domira Bay
Lilongwe
Dedza
Ft. Johnstone
Telegraph
FORT JAMESON
Sasare
Petauke
PETAUKE
Kapiri Mposhi
Mtuga
Mkushi
Broken Hill
Chibamba
Feira
FEIRA
Jessie Fundu
PORTUGUESE
EAST
AFRICA
Zambezi
Zomba
Blantyre
Tete
Railway
Kasempa
KASEMPA
SOLWEZI
Solwezi
Kansanshi
Mwinilunga
MWINILUNGA
Kakene
BALOVALE
Balovale
Zambezi
PORTUGUESE WEST AFRICA
KALABO
Kalabo
LEALUI
Mongu
BAROTSE
Nalolo
NALOLO
MANKOYA
Mankoya
MUMBWA
Mumbwa
Luiri
KAFUE
Lusaka
LUSAKA
Chilanga
Kafue
NAMWALA
Namwala
Mazabuka
MAZABUKA
Magoye
Monze
Pemba
Batoka
Choma
Kalomo
Tara
KALOMO
BATOKA
Bowood
Zimba
Mahali
Kafue Nega Nega
Ibwe Munyama
Kariba Gorge
SESHEKE
Sesheke
Kazungula
Senkobo
LIVINGSTONE
Victoria Falls
CAPRIVI STRIP
Chobe
SOUTH WEST AFRICA
BECHUANALAND PROTECTORATE
SOUTHERN RHODESIA
SALISBURY
22° 23° 24° 25° 26° 27° 28° 29° 30° 31° 32° 33° 34° 35°
9° 10° 11° 12° 13° 14° 15° 16° 17° 18°
A B C D E F G H I J K L M
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THE FINANCIAL POSITION AND SYSTEM OF TAXATION OF KENYA

Report of the Commission [Colonial No. 116] 9s. (9s. 6d.)

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[Colonial No. 150] 2s. (2s. 3d.)

NYASALAND. FINANCIAL POSITION AND FURTHER DEVELOPMENT

Report of Commission [Colonial No. 152] 10s. (10s. 6d.)

PITCAIRN ISLAND

Reports by Mr. J. S. Neill and Duncan Cook, M.D., M.R.C.P., D.P.H.
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THE SYSTEM OF APPOINTMENT IN THE COLONIAL OFFICE AND THE COLONIAL SERVICES

Report of Committee [Cmd. 3554 (1930)] 1s. (1s. 1d.)

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PENSIONS TO WIDOWS AND ORPHANS OF OFFICERS IN THE COLONIAL SERVICE, AND COLONIAL PROVIDENT FUNDS

Report of Committee [Cmd. 5219] 1s. (1s. 1d.)

Lists are issued showing schedules of Offices in the following Colonial Services with the names and brief biographical records of the holders. Each list includes the Special Regulations by the Secretary of State relating to the Service concerned :—

Colonial Administrative Service List	[Colonial No. 147] 2s. 6d. (2s. 8d.)
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Colonial Forest Service List	[Colonial No. 122] 6d. (7d.)
Colonial Legal Service List	[Colonial No. 138] 9d. (10d.)
Colonial Medical Service List	[Colonial No. 159] 1s. 3d. (1s. 5d.)
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ANNUAL REPORT ON THE SOCIAL AND ECONOMIC PROGRESS OF THE PEOPLE OF NORTHERN RHODESIA, 1938

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I.—GEOGRAPHY, CLIMATE AND HISTORY.

Geography.

The Territory known as the Protectorate of Northern Rhodesia lies between longitudes 22° E. and 33° 33′ E. and between latitudes 8° 15′ S. and 18° S. It is bounded on the west by Angola, on the north-west by the Belgian Congo, on the north-east by Tanganyika Territory, on the east by the Nyasaland Protectorate and Portuguese East Africa, and on the south by Southern Rhodesia and the mandated territory of South-West Africa, comprising in all an area that is computed to be about 290,320 square miles. The River Zambesi forms the greater part of the southern boundary; its two main northern tributaries are the rivers Kafue and Luangwa. With the exception of these river valleys, the Territory consists of a table-land varying from 3,000 to 4,500 ft. in height, though in the north-eastern portion, and especially in the vicinity of Lake Tanganyika, the altitude is greater.

History.

The little that is known of the early history of Northern Rhodesia is very fragmentary and is gleaned from the accounts of the few intrepid travellers who penetrated into this unknown Territory.

The Portuguese Governor of Sena, Dr. Lacerda, encouraged by the report of the half-breed Fereira who returned from Kasembe's capital, close to the eastern shores of Lake Mweru in June, 1798, left Tete for the north. He was accompanied by Fathers Francisco, Jose and Pinto, 12 officers and 50 men-at-arms, but failed to reach his goal, and died within a few miles of Kasembe's capital. Father Pinto led the remnants of the expedition back to Sena, and it is from Dr. Lacerda's diaries, which Father Pinto with great difficulty saved, that the first authentic history of what is now North-Eastern Rhodesia was taken. Dr. Lacerda was followed in the early nineteenth century by two Portuguese traders, Baptista and Jose, who brought back stories of the great interior kingdom of the Lunda, which extended from Lake Mweru to the confines of Barotseland and included the whole of the country drained by the Upper Congo and its tributaries. This kingdom is reputed to have lasted from the sixteenth to the nineteenth century. Very few historical facts are known about it, but the name of Mwatiamvo, the dynastic title of the paramount chief, is associated, like Monomotapa, with many half-legendary stories. Neither of these expeditions was of any great geographical value and it was not till 1851, when Dr. Livingstone made his great missionary journeys and travelled through Barotseland and in 1855 discovered the Victoria Falls, that the civilised world had its first authentic information of Northern Rhodesia. Other and later explorers who brought back stories of the barbarism of the Natives, of the wealth of game, and of the glories of the Victoria Falls, were Serpa Pinto, Cameron, Selous and Arnot.

From the very early days when the hordes of migratory Bantu swept southward from Central and Northern Africa, Northern Rhodesia has been subject to constant invasion from stronger tribes on its borders, so much so, that the vast majority of the present Native population, though of Bantu origin, is descended from men who themselves invaded this country not earlier than 1700 A.D. One or two small tribes, numbering now only a very few thousand, such as the Subia on the Zambesi, are all that remain of the inhabitants of Northern Rhodesia prior to that date. Though the story of these invasions has passed into oblivion, their traces remain in the extraordinary number and diversity of races and of languages in the country.

At the present time the population of the Territory has been classified into 73 different tribes, the most important of which are the Bemba, Ngoni, Chewa, and Bisa in the north-eastern districts, the Rozi, Tonga, Luvale, Lenje, and Ila in the north-western districts, and the Senga, Lala, and Lunda, sections of which are resident in both the eastern and western areas. There are some 30 different dialects in use, but many of them vary so slightly that a knowledge of six of the principal languages will enable a person to converse with every Native in the country. Nyanja is in use as the official language of the police and is probably the language most generally spoken by Europeans; it is in reality a Nyasaland language—the word means " Language of the Lake "—but it is also spoken to some extent round Fort Jameson. In many instances the tribes overlap and encroach upon each other, and it is not uncommon to find a group of villages of one tribe entirely surrounded by villages of another tribe. Many of the tribes on the borders extend into neighbouring territories; in some instances the paramount chief resides in a foreign country and only a small proportion of the tribe lives in Northern Rhodesia.

The chief invaders of the early part of the nineteenth century were the Arabs from the north, the Ngoni, a branch of the early Zulus who fled from the oppressive tyranny of Tchaka and who settled in the north-east of the Territory, and the Kololo, an offshoot of the Suto family, who in the beginning of the nineteenth century fought their way from the south through Bechuanaland and across the Zambesi under the noted Chief Sebitoani; they conquered the Toka, the Subia, and the Lozi and founded a kingdom which was distinguished by a comparatively high degree of social organization.

The duration of the Kololo kingdom was short, lasting between 20 and 30 years. Soon after the death of Sebitoani, the Lozi rebelled and massacred the Kololo to a man, keeping their women. As a result of this the influence of their occupation is still to be seen in the Kololo language, which is largely spoken amongst the tribes near the Zambesi. The Lozi under Lewanika enlarged their kingdom, by conquering several surrounding tribes, such as the Nkoya, the Lovale, and the Toka. Beyond these limits their authority was both nebulous and ephemeral.

In the year 1891 Lewanika was informed that the protection of Her Majesty's Government had been extended to his country as he had requested that it should be, and on 17th October, 1900, the Barotse Concession was signed by him and his chiefs and representatives of the Chartered Company. The concession was confirmed in due course by the Secretary of State for the Colonies and under its terms the Company acquired certain trading and mineral rights over the whole of Lewanika's dominion, while the paramount chief was to receive, among other advantages, an annual subsidy of £850.

During this time the slave trade established by the Arabs continued unchecked. Its baleful influence had gradually spread from the shores of Lakes Nyasa and Tanganyika over the whole Territory; but with the establishment of a Government post at Abercorn in 1893 the slave trade in this part of Africa received its first serious check. In each succeeding year more Arab settlements on the Lake shore were destroyed. Sir Harry Johnston defeated the Arab Chief Mlozi at Karonga in 1894, and the last caravan of slaves, which was intercepted on its way to the east coast, was released at Fort Jameson in 1898. Even after that, bands of slave-raiders were occasionally encountered on the north-east boundary and skirmishes with them took place as late as 1900; but with the final establishment of the administration of the British South Africa Company the slavers quickly disappeared from the country. The status of the conquered tribes under Lewanika's dominion was that of a mild form of slavery. This social serfdom was brought to an end by the edict of Lewanika, who in 1906 agreed to the emancipation of the slave tribes.

Before 1899 the whole Territory had been vaguely included in the Charter granted to the British South Africa Company, but in that year the Barotseland-North Western Rhodesia Order in Council placed the Company's administration of the western portion of the country on a firm basis. It was closely followed by the North-Eastern Rhodesia Order in Council of 1900 which had a similar affect. The two territories were amalgamated in 1911 under the designation of Northern Rhodesia, and the administration of the Company (subject to the exercise of certain powers of control by the Crown) continued until 1924. In that year the administration of the territory was assumed by the Crown in terms of a settlement arrived at between the Crown and the Company, and the first Governor was appointed on 1st April, 1924.

Since that date rich copper deposits have been discovered in the north-west of the territory and have been developed into an extensive industrial area embodying four large townships with a population including several thousand Europeans.

Climate.

There are considerable differences between various parts of the country. The Zambesi, the Luangwa and the Kafue valleys experience a much greater humidity and a more trying heat than do the plateaux above 3,500 or 4,000 feet. The hottest months are October and November before the rains break, when the maximum temperature is about 97° F. at Zambesi valley stations and about 85° F. at plateau stations. The mean maximum for the eight months of the hot season (September to April) is approximately 90° F. with a mean minimum of 64° F., while the corresponding figures for the four months of the cold season (May to August) are 79° F. and 46° F.

The following table gives representative temperatures for the territory experienced during 1938:—

	Highest mean Max. °F.	*Month.*	*Lowest mean Min. °F.*	*Month.*	*Absolute Max. °F.*	*Month.*	*Absolute Min. °F.*	*Month.*
Livingstone, 3,051 ft.	95·8	Oct.	45·2	July	104·0	Oct.	37·0	June
Broken Hill, 3,920 ft.	89·0	Oct.	48·5	June	96·0	Oct.	41·0	July
Isoka, 4,210 ft.	87·8	Oct.	55·9	June	92·0	Oct.	53·0	June
Balovale, 3,400 ft.	90·4	Sept.	45·0	July	98·0	Oct.	34·0	July

Highest temperature ... ... Kanchindu, 115° F.
Lowest temperature ... ... Sesheke, 27° F.

The greatest rainfall recorded in 24 hours was 5·05 ins. on the 28th February, 1938, at Liumbi Hill, Barotseland.

The rainy season usually begins in November and lasts until April. Slight showers occur to the north-east of the Territory in August and to the north-east and north-west in September. In October the rains begin to spread over the whole Territory, reaching a maximum in December. The intensity of rainfall decreases in January, this falling-off appearing to be the nearest approach to a break in the rains, which is characteristic of the two seasonal areas of the central tropical zone. In February the rains re-establish themselves over the whole of the central area of the Territory, following much the same contour alignment as in December. In March the zone of heavy rainfall shifts well to the north and east. By April the rains have moved north and in May they have practically ceased.

II.—GOVERNMENT.

Central Administration.

The office of Governor was created by an Order of His Majesty in Council dated 20th February, 1924, and the first Governor assumed his duties on 1st April, 1924.

The Governor is advised by an Executive Council which consists of five members—the Chief Secretary, the Attorney-General, the Financial Secretary, the Senior Provincial Commissioner, and the Director of Medical Services. Provision is also made for the inclusion of extraordinary members on special occasions.

The Order in Council provided that a Legislative Council should be constituted in accordance with the terms of the Northern Rhodesia (Legislative Council) Order in Council, dated 20th February, 1924, to consist of the Governor as President, the members of the Executive Council *ex officio*, nominated official members not exceeding four in number, and five elected unofficial members.

In 1929 the number of elected unofficial members was increased to seven as a result of the very considerable increase in the European population. During the year 1938 the numbers of official and unofficial members were equalised by an amending Order in Council which made provision for a nominated unofficial member to represent native interests and a reduction by one of the number of official members.

The seat of government was transferred from Livingstone to Lusaka in 1935, the official inauguration of the new capital being arranged to coincide with the ceremonial celebration of His late Majesty's birthday on the 3rd June.

Provincial Administration.

For administrative purposes the Territory was formerly divided into nine provinces, each of which was under a Provincial Commissioner responsible for his province to the Governor. The provinces were grouped together under five Provincial Commissioners in 1933, and as from 1st January, 1935, the number of provinces was reduced to five. During 1937 the number was increased to six. The provinces are divided into districts under the charge of District Commissioners responsible to the Provincial Commissioners.

Native Administration.

In 1936 a new Native Authority Ordinance was passed, which modified the previous Ordinance, providing for the recognition of Native Authorities by the Governor, instead of their appointment, as previously. Emphasis is laid on the development of tribal institutions on traditional lines. The Ordinance gives powers to Native Authorities to issue Orders and to make Rules to enable them to govern and maintain order in tribal areas. Provision is also made for the setting up of Native Treasuries, and powers are given to Native Authorities to impose rates, dues and fees, subject to the Governor's approval. The passing of the Ordinance marks a definite advance in the development of tribal self-government. Native Treasuries came into operation during 1937 and have shown progress.

A similar Ordinance was passed for Barotseland during 1936, with the concurrence of the Barotse Native Government. It follows closely the provisions of the Native Authority Ordinance, but gives the Paramount Chief wider powers than are given to Native Authorities elsewhere. A Native Treasury had already been established in Barotseland, and its institution continues to show improvement in the control of moneys by the Barotse Native Government.

III.—POPULATION.

The first census of the Territory took place on the 7th May, 1911, prior to the amalgamation in the same year of North-Eastern and North-Western Rhodesia under the title of Northern Rhodesia; the second was held on the 3rd May, 1921, and the third on the 5th May, 1931.

The following table shows the increase of population since 1911 (the figures for European population for 1931 are census figures, while all those for African population are taken from the annual Native Affairs Reports):—

Year.	*Europeans.*	*Increase per cent.*	*Africans.*	*Increase per cent.*	*Proportion of Africans to one European.*
1911 ...	1,497	—	821,063	—	548·47
1921 ...	3,634	143	979,704	19	269·59
1931 ...	13,846	381	1,372,235	40	99

The increase in the number of Europeans between 1921 and 1931 was due to the influx which took place during the development of the copper mines in the Ndola district between 1927 and 1931. The mines had nearly completed construction towards the end of the year 1931 and a considerable number of Europeans left the Territory in consequence.

The economic depression which set in towards the end of the same year was the cause of a further drop of 23·7 per cent. during 1932. In 1933 and 1934 an increase was brought about by the renewed activity at the copper mines. The European population is now in the region of 13,000.

The numbers of Asiatics and non-Native coloured persons in the Territory at the 1931 census were 176 and 425 respectively. The Asiatic population as at 31st December, 1938, was approximately 537 as compared with 421 in 1937 and 360 in 1936. Nearly all the Asiatics are British Indians.

The African population in 1934 was estimated to be 1,366,425, a decrease of 4,788 or ·34 per cent. on the previous year, and its average density through the Territory was 4·7 to the square mile. No count of the Native population has since been made, but so far as is known there has been little change.

Immigration.

A total number of 17,042 persons entered Northern Rhodesia during 1938; this number includes immigrants, returning residents, visitors and tourists, and a small percentage of persons in transit.

Immigrants numbered 2,785 of whom 2,529 were British subjects and 256 aliens, the percentage of aliens being 9·19 per cent. of the year's total.

The following comparative table of immigrants shows the progress of the Territory: —

1928	1,066	1935	1,352
1930	3,651	1936	1,212
1932	615	1937	2,737
1934	1,726	1938	2,785

Twenty-eight persons were removed from the Territory under the Immigration Ordinance. Four of these were illiterate; four had previous convictions; two were on economic grounds; and the rest because of insufficient means to comply with the Immigration Laws.

Accurate statistics of emigration are not available, but the numbers leaving the Territory are estimated to be only slightly less than those entering.

IV.—HEALTH.

The medical facilities available to the European and Native population in the past year were maintained throughout the year, and were as follows: —

European Hospitals.	*Native Hospitals.*
Lusaka.	Lusaka.
Livingstone.	Livingstone.
Broken Hill.	Choma.
Ndola.	Mazabuka.
Kasama.	Broken Hill.
Fort Jameson.	Ndola.
Mongu.	Kasama.
	Fort Rosebery.
	Fort Jameson.
	Mongu.
	Balovale.
	Abercorn.

In addition to these hospitals, Government maintained 36 dispensaries in rural districts in charge of Native orderlies. The rural dispensaries are visited from time to time by the medical officer of the district. Owing to the vastness of the Territory and the lack of means of communication, the treatment of the African population presents considerable difficulty. Steps have already been taken to increase the number of rural dispensaries and Native medical orderlies are being trained at the Medical Training School, Lusaka, for this purpose.

A great deal of valuable medical work has been done by the missions, which control many hospitals and dispensaries under the supervision of doctors, trained nurses and missionaries with some medical training. These services to the Natives are subsidized by Government to the extent of £3,465 per annum.

The large mines in the copper belt maintain their own medical staff in addition to well-equipped hospitals in which they care for their employees. The mine hospitals also treat destitute Europeans and unemployed Natives in the copper belt at Government expense in cases of urgency, but other cases are, when possible, transported to the Government hospital at Ndola.

The railway maintains either full-time or part-time medical officers at Lusaka, Livingstone, Choma, Broken Hill and Ndola, who give medical treatment to railway employees as required.

School Inspections.—Medical and dental inspections of all European schools are carried out by Government medical officers and dental surgeons subsidized by Government, and parents are advised as regards the health of their children. The response of European parents in seeking dental treatment is disappointing, although the impecunious receive free treatment.

Child Welfare.

The welfare clinics previously established at Livingstone, Lusaka, Ndola and Luanshya functioned throughout the year, and reports received are most encouraging. A new clinic at Broken Hill was started during the year. This work is developing and increasing among both European and Natives. At Broken Hill, Lusaka, Ndola and Luanshya full-time nursing sisters of the Government Service are engaged in welfare work. At Lusaka a second nurse is paid by the Town Management Board. At Livingstone a voluntary society interested in this aspect of medical work employs a nurse, and derives funds from annual grants-in-aid contributed by the Beit Trustees, the Railway Company, the Municipality and the Government.

V.—HOUSING.

European Government Housing.

The new houses at Lusaka are brick built and are mostly of two-storey villa type without verandahs, but a new type of one storey bungalow is now being erected with a mosquito-proofed verandah. There are also six blocks of flats, each flat containing two rooms, kitchen and bathroom. Each block contains eight flats. The newest houses and flats are mosquito-proofed. Old and new Government houses at Lusaka have all been given water carried, indoor sanitation.

Outside Lusaka, most Government quarters are brick buildings of bungalow type with wide verandahs, and many are provided with mosquito gauze. Domestic sanitation consists of earth closets.

European Non-Government Housing.

Modern buildings, most suitable to this country, and equipped with every convenience, are to be found on all the mines on the copper belt. Most privately-owned residences throughout the Territory are similar to the older type of Government houses.

Native Housing.

In areas where most Europeans live the natives are housed in locations. The houses themselves, in most places, and their surroundings leave much to be desired, but efforts are being made to get away from the old compound atmosphere and to provide quarters best described as an improved African village. The Governor's Village and the personal servants' compound at the new Capital are examples of this, and these have waterborne sanitary arrangements.

The housing of natives in the mining areas is very good on the whole, and compares very favourably with most town compounds in the railway line townships.

There are many evidences that natives themselves appreciate good and sanitary housing and improvement as to space, lighting and ventilation may be seen in native villages.

VI.—NATURAL RESOURCES.

Land and Agriculture.

Of the total area of the Territory, approximately 275,000 square miles, some 13,700 square miles, or about 4½ per cent., has been alienated to Europeans.

The quantities of the major agricultural commodities produced by Europeans in the last two years are given in the following table:—

	Maize. Bags of 200 lb.	*Tobacco. Lb. of cured leaf.*	*Wheat. Bags of 200 lb.*	*Mixed Vegetables. Tons.*
1937	294,500	1,260,000	5,500	1,125
1938	206,024	2,066,000	5,021	847

For the fifth successive season the annual rainfall in the railway belt has been low and "permanent" water supplies have been seriously reduced in consequence. The effective rains ended early in 1938 except in the Mazabuka district which alone produced a satisfactory maize crop. The average European maize yield fell from 6·6 bags per acre (1937) to 4·9 bags. 156,000 bags of European maize were sold, the remainder being retained for farm consumption. The Native maize crop was also a poor one and only 126,000 bags were delivered to the Maize Control Board, a decline of 74,000 bags on the deliveries of the previous year. For the first time for some years internal consumption was as great as production.

Wheat is grown almost exclusively as a winter crop under irrigation. Lusaka is the main producing centre. For the third successive season the crop was a poor one and, owing to water shortage, the acreage planted was well below normal. 5,021 bags were produced from 1,822 acres, a mean yield of 2·8 bags per acre. Some damage was caused by aphis.

Tobacco, mainly of the flue-cured Virginia type, is grown in the Fort Jameson district and, to a lesser extent, on the railway line. After an unpromising start the season improved greatly and record crops of high quality leaf were obtained. The average yield was 511 lb. of cured leaf per acre and prices were, on the whole, satisfactory. Customs figures for the export of tobacco during 1938 are as follows:—

	Lb.	*Value* £
Overseas	1,084,809	35,469
Union of South Africa	422,729	28,893
Southern Rhodesia	293,286	8,599
Totals	1,800,824	£72,961

The scheme for supplying the internal market has had a stimulating effect on the Native production of groundnuts and beans. The certainty of being able to dispose of the crops has led to increased production, although this has not all gone to supply the internal market, since a shortage in Southern Rhodesia diverted a portion of the bean crop to that territory. In addition, the mines provide a considerable market for mixed Native produce, such as vegetables, relish crops, honey, kaffir corn, cassava, tobacco and even dried caterpillars. Government propaganda and instruction has had a stimulating effect on Native production of beeswax. Exports have been increased from negligible figures to 1,000 cwt. (1937) within five years. In 1938 wax production declined owing to climatic conditions and only 500 cwt. were exported.

The territory continues to obtain the bulk of its fruit requirements from the Union of South Africa. Deciduous fruit trees are successful only in a few favoured localities, but citrus thrives in most places where irrigation is possible. The equivalent of about 10,000 cases of locally-produced citrus fruit was sold during 1938.

Coffee yields were again low and only 476 cwt. were sold in 1938.

Livestock.

Northern Rhodesia remains free from the major diseases of stock, with the exception of contagious bovine pleuro-pneumonia, against which an eradication campaign is in progress in the Barotse Province. Foot-and-mouth disease was eradicated from the Territory early in 1930 and, fortunately, no recrudescence has occurred.

The usual incidence of redwater, gall-sickness, heart-water and other tick-borne diseases occurred, and it is unfortunate that certain stockowners still fail to realize the value of short-interval dipping in the control of these conditions. Trypanosomiasis is very prevalent in certain areas of the Territory. Sporadic outbreaks of anthrax, quarter evil and other bacterial diseases occur and are controlled by prophylactic inoculation. The Territory remains free from rinderpest and East Coast fever. The incidence of parasitic worms is high, particularly in sheep.

Pigs are singularly free from disease and thrive well. Outbreaks of fowl typhoid and fowl pox occur among poultry. Prophylactic inoculation is employed by the more progressive flock-owners.

The demand for slaughter cattle increased during the year to such an extent that it was impossible to supply it from sources within the Territory. Importation from Southern Rhodesia and Bechuanaland therefore became necessary. Importation of breeding stock from Southern Rhodesia and the Union of South Africa continued throughout the year.

Mining.

GENERAL.

Minerals produced during the year were valued at £10,683,715, as compared with £12,751,014 in 1937. This reduction was mainly due to the lower average price of copper, though there was also a falling off in the value of the gold, lead, tin and zinc produced. At the same time there were considerable increases in the production of cobalt and vanadium.

Copper quotas during the year were fixed at the following percentages of basic tonnages:—

1st January to 30th June—105 per cent.
1st July to 14th October—95 per cent.
15th October to 14th December—Unrestricted.
15th December to 31st December—105 per cent.

In November the Territory's production of blister copper reached the record figure of 19,902 tons, and in December, despite the re-imposition of quota restrictions during the month, the further record of 20,963 tons was achieved. The total value of copper production for each of these months exceeded £1,000,000.

PROSPECTING.

Rhokana Concession.—In the Balovale District 3,188 square miles were prospected and mapped, a number of occurrences of manganese oxides being found in one part of the District. Diamond drilling was continued at Konkola, where nine drill-holes were completed, and at Masonkola, to the east of Konkola, 13 drill-holes were completed.

Loangwa Concession.—1,684 square miles were mapped and traversed and a further 3,564 square miles covered by a network of reconnaissance traverses. To the north-west of Broken Hill trenching and pot-holing were carried out on two manganese occurrences. Prospecting operations ceased at the close of the year and the concession has since been abandoned.

MINES.

Broken Hill.—Diamond drilling to depths of 1,100 ft. was extended systematically eastwards and satisfactory bodies of zinc silicates and mixed lead and zinc sulphides intersected. The three-compartment pumping shaft known as Davis Shaft reached its final depth of 1,115 ft. in October and the excavation of the pump chambers and sumps was commenced. Provision is being made for a final pumping capacity of over 20,000,000 gallons a day. The site for a six-compartment hoisting and service shaft was selected.

The market price of zinc was unattractive and production was curtailed, but the mine was fortunate in being able to effect a considerable increase in the production of vanadium.

Bwana Mkubwa.—The only work in progress, apart from the dismantling of the old plant, was the quarrying of silica rock for the Nkana smelter.

Cassiterides.—A small quantity of tin concentrates was produced during the first half of the year. Production then ceased, but, under an option to purchase, a London company undertook the examination of the area. By the end of the year pitting and Banka drilling were in progress.

Chakwenga.—At this gold prospect underground development on the 230 ft. and 300 ft. levels was continued throughout the year and totalled 1,776 ft. of driving and cross-cutting.

Dunrobin.—Luiri Gold Areas, Limited, concentrated operations on the Dunrobin Mine. The mine was dewatered, the main inclined shaft deepened and the driving of a fourth level east and west started. The old workings on the third level were cleaned out and connection made to the vertical shaft. A cyanide plant was erected and the treatment of accumulated mill tailings started in October.

Kansanshi.—All work at this mine was suspended in April.

Kantupa.—A small quantity of gold was recovered by hand dollying and amalgamation. Work was suspended in August until after the rains.

Mufulira.—Satisfactory progress in the development of stoping areas was made during the year. The sand filling of worked-out stopes and caved areas was continued and extended.

The transmission line from Roan Antelope was completed in April and the erection of additional boilers was commenced. A 15,000 cubic feet per minute turbo-compressor was installed as were also mechanical flotation machines having a total daily capacity of 1,600 short tons. At the smelter a seconder converter aisle crane and a holding furnace were completed and the erection of a second reverberatory furnace, with waste-heat boiler, and of a third converter begun. The completion of these will bring the capacity of the smelter up to 12,000 tons a month.

Nchanga.—The new vertical shaft was sunk to a depth of 970 ft. and the two inclined shafts completed to the 470 ft. level. The excavations for pump chambers, sumps, etc., were completed and eight pumps, each having a capacity of 2,000 gallons a minute, erected. Diamond drill holes were put through to the old, flooded workings and pumping was commenced on the 24th December.

A portion of the power plant was completed and one 6,000 K.V.A. and one 3,000 K.V.A. turbo-alternator put into operation. The erection of a pilot plant was started.

Nkana.—Normal underground development was executed at both Nkana and Mindola and the tonnage of ore available in the latter section showed a steady increase.

A 12,000 K.V.A. generator set and a Demag compressor were installed during the year. A third cobalt Lectromelt furnace was installed. The cobalt metal content of the cobalt alloy produced was 3,221,357 lb., nearly double that of the previous year.

Roan Antelope.—At the Storke Service Shaft the permanent hoist was put into operation in May and by the end of the year the 1,960 ft. level pump chamber and sump excavations had been completed and the installation of the pumps commenced.

No. 66 Service Shaft was sunk to a depth of 732 ft. and No. 1 Sub-Incline was sunk 830 ft. to the 1,110 ft. level. Development work was maintained well ahead of stoping requirements.

The erection of the new, 6,000 tons, fine ore-bin was nearly finished and a start made on the replacement of the air-lift flotation machines by mechanically-operated ones. Additions at the smelter included a rotary holding furnace and the erection of a fourth converter was well advanced.

New general offices were completed in May and the new survey and mine offices at Storke Shaft were also finished and brought into use.

VII.—COMMERCE.

General trade, owing mainly to the continued prosperity of the copper mining industry, was again on a very satisfactory level, although the value of exports fell as a result of the lower average market price of copper ruling in the London Market. The value of merchandise imported during 1938 amounted to £5,114,428, as compared with £4,004,402 in 1937, an increase of £1,110,026, or 28 per cent. In addition Government stores valued at £53,165 and specie totalling £56,100 were imported.

Total exports of merchandise reached a value of £10,130,941 as compared with £12,021,542 in 1937, a contraction of £1,890,601 or 16 per cent. In addition specie to the value of £3,900 was exported.

The rising tendency in import values reported last year has continued and again the increase is chiefly due to goods enumerated under Class V (metals, metal manufactures, machinery and vehicles), which rose from £1,680,621 in 1937 to £2,538,991 during the year. Imports classified as normal consumption goods continued to rise and all classes, with one exception, showed a further expansion as compared with the previous year.

The British Empire supplied 78 per cent. in value of the total imports of merchandise during 1938 as compared with 75 per cent., 79 per cent., 78 per cent., and 75 per cent. during the years 1934 to 1937. The United Kingdom, as usual, was the main country of supply with 44 per cent. of the total imports and the United States again the largest non-Empire suppliers with 10 per cent. Metals accounted for 97 per cent. of the total value of domestic exports, copper representing 88 per cent. As stated above the reduction in the value of exports is due principally to the lower prices obtained for copper, but the total production of this metal was approximately the same as in the previous year. The largest purchasers of domestic exports were United Kingdom 40 per cent., Germany 32 per cent., and Italy 10 per cent.

The balance of trade in favour of exports was £5,016,513 as compared with £8,017,140 in 1937, a contraction of 37 per cent.

The following figures give the values of imports and exports and re-exports of merchandise during the past ten years:—

Year.	*Imports.*	*Exports and Re-exports.*
	£	£
1929	3,602,417	899,736
1930	4,862,722	885,976
1931	5,140,548	1,178,515
1932	1,864,902	2,675,248
1933	1,931,829	3,715,396
1934	2,884,506	4,530,933
1935	2,902,960	4,778,604
1936	2,291,953	6,037,616
1937	4,004,402	12,021,542
1938	5,114,428	10,130,941

Imports.

The following summary gives a comparison of the value of merchandise imported during the years 1935 to 1938, showing separately the values of Empire and foreign imports:—

Imported from	*1935.*	*1936.*	*1937.*	*1938.*
	£	£	£	£
Union of South Africa ...	410,140	436,285	715,814	809,867
Southern Rhodesia ...	449,673	433,135	623,642	754,031
United Kingdom and other Empire countries ...	1,444,298	918,915	1,650,427	2,448,661
Total British Empire...	2,304,111	1,788,335	2,989,883	4,012,559
Foreign countries	598,849	503,618	1,014,519	1,101,869
Total merchandise ...	£2,902,960	£2,291,953	£4,004,402	£5,114,428

For the purpose of illustrating the routes of import trade, the following table shows the value of merchandise from the Union of South Africa and Southern Rhodesia and directly from overseas during the years 1935 to 1938:—

Imports from.	*1935.*	*1936.*	*1937.*	*1938.*
	£	£	£	£
Union of South Africa ...	552,485	546,720	987,489	1,070,795
Southern Rhodesia ...	1,085,314	1,025,783	1,512,400	1,714,196
Overseas (direct)	1,265,161	719,450	1,504,513	2,329,437
	£2,902,960	£2,291,953	£4,004,402	£5,114,428

The following table gives the values of the principal classes of imports during the years 1934 to 1938:—

Class.	*1934.*	*1935.*	*1936.*	*1937.*	*1938.*
	£	£	£	£	£
Animals, agricultural and pastoral products.	18,545	14,861	17,249	30,992	37,185
Foodstuffs, ...	224,744	212,816	187,420	259,835	329,060
Ales, spirits, wines, and beverages.	89,980	95,152	85,541	114,086	136,185
Tobacco manufactures ...	62,071	63,393	58,473	71,286	89,537
Textiles, apparel, yarns and fibres.	350,353	411,109	370,850	546,896	580,767
Metals, metal manufactures, machinery and vehicles.	1,187,340	1,210,149	681,294	1,680,621	2,538,991
Minerals, earthenware, glassware and cement.	247,218	253,649	236,622	373,679	400,454
Oils, waxes, resins, paints and varnishes.	137,597	140,151	145,186	194,448	170,620
Drugs, chemicals and fertilizers.	85,588	76,614	72,133	96,677	99,910
Leather and rubber, and manufactures thereof.	78,403	64,575	63,006	97,071	102,474
Wood, cane, wicker, and manufactures thereof.	71,749	48,009	53,927	110,172	111,610
Books, paper and stationery.	38,546	44,300	40,497	50,283	62,611
Jewellery, time - pieces, fancy goods, etc.	28,310	32,773	26,387	36,739	48,432
Miscellaneous	264,062	235,409	253,458	341,617	406,592
Total Merchandise ...	£2,884,506	£2,902,960	£2,291,953	£4,004,402	£5,114,428

Exports.

The following table shows the values of exports and re-exports during the years 1935 to 1938:—

	1935.	*1936.*	*1937.*	*1938.*
	£	£	£	£
Exports	4,671,895	5,936,692	11,903,712	10,026,851
Re-exports	106,709	100,924	117,830	104,090
Total Merchandise ...	4,778,604	6,037,616	12,021,542	10,130,941
Specie	23,959	7,521	9,057	3,900
Grand Totals	£4,802,563	£6,045,137	£12,030,599	£10,134,841

In the following table a comparison is given between the values of exports and re-exports to the Union of South Africa, Southern Rhodesia, the United Kingdom and other Empire countries and to foreign countries during the years 1935 to 1938:—

Exports.	*1935.*	*1936.*	*1937.*	*1938.*
	£	£	£	£
To Union of South Africa ...	162,300	294,217	323,649	266,275
To Southern Rhodesia ...	26,768	53,294	79,539	132,141
To United Kingdom and other Empire countries.	2,470,154	3,208,822	6,201,334	4,005,823
To Foreign Countries ...	2,012,673	2,380,359	5,299,190	5,622,612
Total Exports	£4,671,895	£5,936,692	£11,903,712	£10,026,851

Re-exports.	*1935.*	*1936.*	*1937.*	*1938.*
	£	£	£	£
To Union of South Africa ...	27,474	29,170	27,725	26,007
To Southern Rhodesia ...	66,772	61,905	71,967	64,078
To United Kingdom and other Empire countries.	1,693	2,469	8,784	6,046
To Foreign countries	10,770	7,380	9,354	7,959
Total Re-exports ...	£106,709	£100,924	£117,830	£104,090

The values of the principal articles exported during the years 1934 to 1938 are given below:—

Article.	*1934.*	*1935.*	*1936.*	*1937.*	*1938.*
	£	£	£	£	£
Copper	3,705,783	3,976,504	4,994,712	10,704,078	8,858,570
Cobalt	191,755	132,646	152,056	292,328	475,385
Zinc...	330,454	295,092	334,621	377,991	90,941
Vanadium	37,224	81,395	125,571	157,081	281,310
Gold	6,351	10,057*	22,962*	28,983	4,388*
Tobacco (leaf) ...	41,669	43,220	37,658	41,779	72,961
Wood (unmanufactured).	20,891	25,931	31,425	40,061	42,949
Wood (manufactured).	42,215	78,712	111,203	107,634	133,315
Hides and skins ...	9,946	10,613	16,493	23,124	18,673

* Value calculated at prices ruling at time of export.

For Customs purposes Northern Rhodesia is divided into two zones known as the Congo and Zambezi Basins. The Congo Basin can roughly be taken to be all the territory north of a line drawn on a map of Northern Rhodesia in a south-westerly direction from Fife in the north-east to the border where the territory joins the south-east corner of the Belgian Congo. The remainder of the territory to the west and the south constitutes the Zambezi Basin. The Zambezi Basin is by far the more important part of the territory industrially, and more than 90 per cent. of the total trade is transacted in this area.

The Zambezi Basin is subject to Customs Agreements with Southern Rhodesia, the Union of South Africa, and with the Bechuanaland Protectorate, Basutoland, and Swaziland. The agreements provide in general for considerable rebates upon interchange of local manufactures, and for free interchange of raw products with limitation in regard to leaf tobacco.

The Congo Basin part of the territory is within the area defined by the Berlin Conference of 1885, and under the terms of the Convention revising the General Act and Declaration of Brussels of the 2nd July, 1890, signed at St. Germain-en-Laye on the 10th September, 1919, commercial equality within this area must be granted to nationals of the Signatory Powers and those of States Members of the League of Natons whch adhere to the Convention. This part of the Territory is therefore excluded from the terms of the Customs Agreements mentioned above.

In the Zambezi basin, Empire preference is given in the case of the following classes of goods, which are mainly liable to ad valorem rates of duty:—clothing, blankets and rugs, cotton piece-goods, motor cars and all articles usually imported for household and native use. The duty on Empire products is in almost every instance 10 per cent. or 12 per cent., while the duty on foreign products varies from 15 to 30 per cent. In the case of cotton and silk piece-goods, shirts, singlets, and rubber shoes from foreign countries, the tariff provides for alternative specific rates of duty if these should be greater. Agricultural, electrical, mining, and other industrial machinery, pipes and piping, metals and metal manufactures imported for industrial purposes, if of Empire manufacture, are free of duty, and if of foreign origin are subject to an ad valorem duty of 5 per cent., except foreign electrical machinery, on which the duty is 10 per cent. ad valorem.

Specific rates of duty apply to practically all imported foodstuffs, lubricating oils, paraffin and cement, and to spirits, wines, beer, and tobacco. Upon the latter items, apart from rum, no preference is granted except under the Customs Agreements with the neighbouring territories in the south, but varying rates of preference are granted to foodstuffs of Empire origin.

The Customs Tariff contains two scales of duty:—

Scale " A "—in respect of goods not entitled to preferential treatment;

Scale " B "—in respect of goods from the United Kingdow and British Possessions, and all goods imported into the Congo Basin area.

PORTS OF ENTRY.

The following are the ports of entry into and exit from Northern Rhodesia:—Lusaka, Ndola, Livingstone, Fort Jameson, Broken Hill (free warehousing ports), Abercorn, Solwezi, Fort Rosebery, Chingola, Kawambwa, Mpika, Balovale, Mwinilinga, Isoka, Chiengi, Feira, Kazangula, Lundazi and Mufulira.

CUSTOMS AGREEMENTS.

The terms of the agreement with the Union of South Africa provide for the transfer of Union rates of duty or Northern Rhodesia rates of duty, if these are higher, when overseas goods are removed from the Union to Northern Rhodesia, and for the transfer of Union rates of duty when overseas goods are removed from Northern Rhodesia to the Union. In respect of local manufactures (with certain exceptions) removed between the two territories Government payments of 15 per cent. of the export value of foodstuffs and 10 per cent. of the export value of other manufactures are made. During 1936 the agreement was amended and a Government payment is not now made on electrolytic copper and zinc produced in Northern Rhodesia and removed to the Union. The other exceptions are manufactured tobacco, beer, wines and spirits, which are directly taxed at tariff rates subject to the following rebates:—manufactured tobacco, 75 per cent.; beer and wines, 50 per cent.; spirits, 25 per cent. Free interchange of unmanufactured goods is provided for, but Northern Rhodesia leaf tobacco exported to the Union is limited to 400,000 lb. per annum free of duty and, similarly, Union leaf tobacco imported into Northern Rhodesia is limited to 50,000 lb. free of duty.

The terms of the agreement with Southern Rhodesia provide for a uniform tariff so far as possible and the transfer of the duty imposed in the receiving territory when imported goods are removed from one territory to the other. In respect of local manufactures removed between the two territories, Government payments of 12 per cent. of the export value of foodstuffs and 9 per cent. of the export value of all other local manufactures are transferred, except in the case of beer, wines and spirits, which are directly taxed at tariff rates subject to the following rebates:—beer and wines, 50 per cent.; spirits, 25 per cent. Cigarettes and tobacco of Southern Rhodesia or Northern Rhodesia manufacture are not liable to import rates upon removal from one territory to the other but are subject to a transferred payment of the appropriate excise duties. Free interchange of unmanufactured goods is provided for.

VIII.—NATIVE LABOUR.

During the year Major Orde Browne, who arrived in the Territory towards the end of 1937, issued a valuable report on labour conditions. He stressed the need for an effective Department of Native Labour, on the organisation of which he had been asked to advise. His recommendations were carefully examined, and proposals for the formation of a Labour Department have been approved. Major Orde Browne made many other valuable recommendations, many of which have already been put into effect. A Labour Officer from Northern Rhodesia was appointed to Salisbury to look after the interests of Natives from the Territory working in Southern Rhodesia. He took up his appointment on the 1st July.

It is estimated that there are 279,949 able-bodied males domiciled in Northern Rhodesia, and of this number approximately 152,230 were in employment at the end of the year, 97,976 inside the Territory and 54,254 outside. Of those working inside the Territory 23,754 were employed on mines, about 10,000 as domestic servants and 9,000 on farms. Of those employed outside the Territory about 44,000 were in Southern Rhodesia, 8,000 in Tanganyika and the remainder in the Belgian Congo, the Union of South Africa and elsewhere. The main labour supplying areas are the Northern Province, the Eastern Province and the Barotse Province.

The average wage paid to unskilled labourers varies from 6s. a month for agricultural labourers to about 45s. a month for underground miners. In addition to wages, employers are required by law to provide adequate housing and good and sufficient rations.

The copper mines do not recruit labour but rely on Natives presenting themselves at the copper belt for work. They are still able to keep their labour supplies up to strength by this method although they have found it necessary to reduce the high physical standard somewhat in order to maintain the necessary labour supply. The wages and general conditions on the mines continue to be excellent, and interesting experiments are being conducted to increase efficiency by means of improved diet. The method of obtaining labour leaves room for improvement, however, in three directions. The provision of rest camps, food depots and increased medical facilities on labour routes is obviously desirable. While saving is encouraged and there are facilities for home remittances, some further steps are required to ensure that Natives take savings back with them to their tribal areas. The regular return of labourers to their homes is also most desirable. These three points were taken up with the mine managements during 1938 and during 1939 something is being done to establish properly organized labour routes, to institute a system of voluntary deferred pay and to facilitate the regular return of labourers to their homes.

Some difficulty was experienced in obtaining sufficient labour for work on the roads and the pay and conditions of road labourers were improved. By its very nature, road labour is bound to be less attractive than work in more settled conditions and added attractions in the form of higher pay and better rations are necessary to attract workers. Steps have been taken also to improve the housing of road gangs.

The labour position on the tobacco plantations in the Eastern Province improved during the year. There is, however, still room for improvement in the relations between employers and employees in that area, and it is proposed to station a Labour Officer there shortly.

Farmers on the railway strip have found considerable difficulty in obtaining sufficient labour and have had to resort to the labour recruiter. It must be admitted that conditions in regard to pay, housing and feeding on the farms in many instances leave much to be desired. The problem presented here is a difficult one, but it is possible that if conditions could be improved in certain directions, notably in feeding, employers would be able to afford the extra expense by obtaining better efficiency. This has been the experience of at least one mine and farmers will be invited to consider the position carefully.

In spite of the greater number of Natives reported to be at work outside the Territory, the flow of labour to Southern Rhodesia fell off during the earlier months of the year, and this caused the Southern Rhodesian employers and Government some anxiety. The Migrant Labour Agreement between Northern Rhodesia, Southern Rhodesia and Nyasaland, which came into force in June, 1937, was brought fully into effect. Its provisions in regard to passports became effective in March and from that date all Natives proceeding to Southern Rhodesia were required to be in possession of identity certificates endorsed for work in Southern Rhodesia. The reasons for the falling off of labour supplies were uncertain: no doubt it was attributable to a number of causes, not least among these being the increased prosperity of the Natives in this Territory.

Three meetings of the inter-territorial Standing Committee on Migrant Labour were held, two at Salisbury and one at Lusaka, when a number of matters connected with the work of the agreement were discussed. Some of the subjects considered were identification and passports, health, housing, transport of labourers and compensation.

The Witwatersrand Native Labour Association continued to engage Northern Rhodesia Natives at Kazungula, in Bechuanaland on the Zambesi River, in pursuance of the arrangement whereby 1,500 Barotse Natives were employed in the Witwatersrand Mines as an experiment. Investigation showed that the health of the Natives so employed was improving and the mortality rate decreasing. At a meeting with the Manager of the Witwatersrand Native Labour Association it was suggested that subject to a small further decrease in the death rate, recruitment for the Witwatersrand should be permitted up to the extent of 3,500 Natives and ultimately 5,000. A remarkable fall in the disease death rate of the Witwatersrand has been reported more recently and is attributed to the use of a new anti-pneumonia drug.

All matters connected with industrial labour were referred to the Native Industrial Labour Advisory Boards for their advice. The Board consists of representatives of all leading employers of industrial labour and Government officials who are concerned in the matters discussed.

The problem of improving Native housing in urban areas received close attention. Efforts made in recent years to provide adequate housing for Natives in towns at an economic rental which would be reasonable and within the means of those requiring housing have failed. Government, therefore, decided on a policy of making loans to Local Authorities on conditions similar to those incurred by Government in borrowing the money, with the express purpose of assisting them to build satisfactory Native locations. In addition, Government is prepared to grant assistance to Local Authorities in meeting the losses incurred by them in running their Native locations on sound lines.

IX.—WAGES AND COST OF LIVING.

The cost of living for Europeans is governed mainly by the cost of transport. Transport charges, even to places on the railway, add considerably to the price of commodities. When transport by motor or other means is necessary, as it is for places off the line of rail, the average price is still further increased.

The average price of various commodities on the line of rail is as follows:—

	Average.	
	s.	*d.*
Bread, per lb. loaf ...		4½
Local flour (1st grade), per lb.		4
Patna rice, per lb. ...		4
Mazawattee tea, per lb.	3	0
Sugar (white granulated), per lb....		4
Coffee (average, loose and tinned), per lb.	2	0
Butter, per lb.	2	0
Bacon, per lb.	2	0
Eggs (European farms), per doz. ...	2	0
Milk, per pint		4
Beef, per lb....		9
Soap (Sunlight), per packet	1	6
Kerosene, tin of 4 gallons ...	10	0
Motor spirit (Shell), per gallon	2	3

Income tax on individuals is charged as follows*:—
For every

	s.	d.
£1 of the first £100 of chargeable income		6
£1 of the next £100 of chargeable income	1	0
£1 of the next £100 of chargeable income	1	6
£1 of the next £100 of chargeable income	2	0
£1 of the next £100 of chargeable income	2	6
£1 in excess of £500 of chargeable income	3	0

The following deductions are allowed:—

Personal, £300.

For a wife, £420.

For children, £100 each.

For a dependant the amount expended, not exceeding £100.

For life insurance premiums paid, not exceeding one-sixth of the income remaining after deducting the personal deduction.

An individual who is a non-resident and not a British subject is eligible for the personal deduction of £300 only. Company income tax is at the rate of 4s. in the pound. Relief is allowed in respect of United Kingdom and Empire income tax.

X.—EDUCATION AND WELFARE INSTITUTIONS.

For the education of European children there were in 1938 controlled schools at Livingstone, Choma, Mazabuka, Lusaka, Broken Hill, Ndola, Luanshya, Kitwe and Mufulira, offering primary education up to Standard VII, with the additional subjects, Latin, French, Algebra, Geometry and Science in Standards VI and VII. There were controlled schools at Fort Jameson, Chingola (for the Fourth Quarter), Chomba and Silver Rest offering primary education up to Standard V. All these schools were under Government management, the tuition fees varying from 7s. 6d. to £1 17s. 6d. per quarter.

The following schools, although privately managed, were controlled by Government:—

The Convent School, Broken Hill	Offering education up to the standard of the South African Matriculation Examination.
The Convent School, Ndola ...	Offering Primary Education up to Standard V.
Mulobesi School	
Sakeji School	
The Convent School, Livingstone	

During the year a number of small uncontrolled schools also remained open.

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* Since the beginning of 1939 the rates have been somewhat reduced.

Boarding accommodation was available for girls at the Beit School, Choma, and for boys at the Codrington School, Mazabuka, the boarding fees being £12 10s. per quarter in each case; and for boys and girls at Lusaka School, the boarding fees being £9 per quarter. All three of these schools were under Government management. The Convent Schools at Broken Hill and Ndola, and Sakeji School, all under private management, also provided boarding accommodation.

Fifty-eight teachers were employed in the controlled schools under Government management, the enrolment at the end of 1938 being 1,048. At the same time, 200 children were attending controlled schools under private management and 36 were receiving education through the Southern Rhodesia correspondence classes.

Education for Africans in Northern Rhodesia is still mainly provided through the agency of mission societies. These, however, receive financial support from Government and professional guidance from the inspecting officers of the Native Education Department. Twenty of the missionary societies operating in the country maintain village elementary schools, boys and girls boarding schools, and teacher-training institutions recognized as eligible for Government grants. A total sum of £18,090 was directly distributed among them in recurrent grants in 1937. This amount included grants of £250 from the Carnegie Corporation and of £2,280 from the Barotse Trust Fund, the latter being distributed among the societies carrying on educational work in Barotseland.

Recurrent expenditure on Native education during the year 1938 was as follows:—

	£
From Government revenue	35,265
Carnegie Corporation	250
From Native Treasuries	5,473
	£40,988

Since 1929 a total sum of £13,800, generously granted by the Beit Railway Trustees, has been spent on building and equipping the Jeanes, Normal, Middle and Elementary Schools at Mazabuka. In connection with the establishment of the Native Trades School at Lusaka, buildings were erected between 1932 and 1934 by means of appropriations from Loan Funds. In October, 1938, the Munali Native Training Centre built during the year was opened, incorporating the Central Trades School.

Eighty-six African teachers passed the written part of the Government examinations during the year, making a total of 850 Africans who have passed this test. A total of 427 have been given certificates after inspection of their practical work.

Annual returns show that the Government and mission societies employed on 31st December, 1938, some 2,473 teachers in 1,962 recognised and ungraded schools. The majority of these teachers must still be classed as catechists or evangelists in charge of bush schools and have never had an adequate course of professional training. Approximately 665 trained teachers were in the service of missions at the end of the year and qualified for Government grants-in-aid.

A hundred and one European teachers and technical instructors were engaged in Native education during the year. Fourteen Europeans and 53 African teachers and instructors, including the staff of the Barotse National School, comprised the staff of the Native Education Department.

Returns, which must be regarded as approximate, show that 25,829 boys and 9,741 girls attended recognised schools, while roughly 86,495 children attended ungraded schools. It is estimated that there are about 250,000 children of school age in Northern Rhodesia. These figures give some idea of the magnitude of the task to which Government and missions are devoting themselves. The Jeanes Training School established by Government at Mazabuka, is an important and effective agent in the work. There were 23 selected mission teachers being trained as Jeanes Teachers until June. Their wives also receive training in hygiene, child welfare, and other domestic subjects. The school is being transferred to a Native Reserve.

At Mbereshi (London Missionary Society) women teachers are being trained along Jeanes lines. A grant of £350 was given in 1938 towards the cost of their training, part being borne by Government and part by the Carnegie Corporation. There are 21 girls' boarding schools subsidized by Government, with an enrolment of approximately 900 pupils. Domestic and vocational training is an important feature of the curricula of these girls' schools.

Boys receive training as carpenters, masons, and bricklayers at the Barotse National School, at Mbereshi and to a lesser degree at several other mission stations. The Government trades school at Lusaka for the training of carpenters, masons, and bricklayers has 52 apprentices in training.

Government has established elementary and middle schools at Lusaka, Ndola and Kasama. The Government Normal School trains teachers for Government requirements and for the smaller missions which have no training schools of their own.

The proportion of recurrent expenditure (including grants from Native Treasuries) on Native education to the total expenditure was at the rate of approximately 3·8 per cent. The amount spent per head of Native population on Native education was approximately 7·2d., but it must be borne in mind that much the greater part of Native education is carried out by the various missions, and it is impossible to compute with any accuracy what their educational services represent in terms of expenditure. If it were possible to arrive at such a sum, the figure given above would be very largely increased.

XI.—COMMUNICATIONS AND TRANSPORT.

Railways.

The railway from Southern Rhodesia via Victoria Falls to the Belgian Congo passes through North-Western Rhodesia, and branch lines serving the Roan Antelope, Nkana, and Mufulira copper mines radiate from the main line at Ndola. Three through passenger trains, on which dining-cars and sleeping accommodation are available, run weekly in each direction over the main line. In addition, local mixed trains with second-class and Native accommodation run daily in each direction between Livingstone and Ndola. No dining-cars are attached to these trains, but stops are made at convenient places sufficiently long to allow of passengers to take a meal at the local hotel. In addition to these a regular goods train service is in operation for the conveyance of goods and mineral traffic, and loads of 1,300 tons in the northward direction are regularly obtained over long sections by these latter trains.

River Transport.

Transport to stations in the Barotse valley is by barge along the Zambesi river, but for rapid transport light aeroplanes are now being used to Mongu, where there is a Government aerodrome. There is no sleeping accommodation on the barges, which are made fast to the river bank for the night while travellers camp on shore. The journey up the Zambesi from Livingstone to Mongu by barge takes from 12 days to three weeks; by air it is effected in three hours.

Roads.

The roads of the Territory are of earth with the exception of the portion of the Great North Road which runs from the Victoria Falls to Livingstone—a distance of some eight miles —and a stretch of two miles in Lusaka, which are bitumen surfaced.

The arterial road system consists of three main routes, the Great North Road from Livingstone, which runs adjacent to the railway as far as Kapiri Mposhi (460 miles) where it turns north-east to Abercorn and Mpulungu on Lake Tanganyika, a total distance of 982 miles. The principal towns and Government stations on this route are Kalomo, Choma, Mazabuka, Lusaka, Broken Hill, Mpika, Kasama and Abercorn. At Mpulungu the lake steamer connects with Kigoma on the Tanganyika Railway.

The Congo Border Road branches off from the Great North Road at Kapiri Mposhi and traverses the copper belt, Bwana Mkubwa, Ndola, Nkana, Nchanga and Solwezi being the principal towns through which it passes. From Solwezi the road turns southward and passing through Kasempa and Mumbwa joins the Great North Road again 45 miles south of Broken Hill. The length of the Congo Border Road is 650 miles.

The Great East Road leaves the Great North Road at Lusaka and proceeds to Fort Jameson and the Nyasaland border, where it connects with the Nyasaland road system. The distance to Fort Jameson is 392 miles and this town is 12 miles from the Nyasaland border.

In addition to the main routes mentioned above, there are 4,950 miles of secondary roads which connect settled areas and Government stations throughout the greater part of the Territory. The roads are generally passable for traffic during the nine months of the year, but during the rainy season, from December to April, the traffic is restricted to 7,000 lb. gross loading on some roads and 5,000 lb. on others. With the exception of the Congo Border Road, the arterial roads have been bridged and culverted with permanent structures. On other roads, waterways, etc., are crossed by bush timber bridges. A number of pontoons are provided at major river crossings, for the use of which Government charges a moderate fee. Travellers can be accommodated at hotels and rest-houses at suitable points on all the arterial road systems.

The road reconstruction programme was continued during the year and completed on the main Congo Border Road as far as Bwana Mkubwa. A certain amount of reconstruction work has also been carried out on the Great North Road south of Kasama and the new earth road re-alignment scheme in the copper belt was carried as far as Nchanga.

Construction work has also been started on a 45-mile bituminous road programme connecting Ndola with Luanshya and Nkana. This work consists of a 10-feet strip of bituminous penetration work 3 inches in thickness on a 6-inch consolidated laterite base course. Laterite shoulders are provided, bringing the total width of completed formation to 21 feet. All trees are being cleared back a further 10 feet on either side of the completed formation and an entirely new system of transverse and longitudinal storm-water drainage provided. The existing earth roads are being carefully re-aligned and the profile graded to eliminate all bumps and hollows and minor changes of gradient.

Ant-heaps are removed to a depth of 18 inches below the subgrade and backfilled with laterite. The laterite foundation course is then laid and the road opened to traffic for two to three months during the wet season before being finally trimmed and the stone laid for the penetration course.

Postal.

The increase of business reported in 1937 continued in 1938, the total cash transactions at all offices increasing from £470,000 to £627,000. The revenue accruing to the Department was £64,600, £300 less than the amount collected in 1937. The total stamp sales during the year amounted to £34,700, £8,000 of which came from the sale of the first issue of King George VI stamps to dealers and stamp collectors.

There was little variation in the mail matter handled during the year as compared with 1937. The figures for 1936, 1937 and 1938 are as follows:—

	1936.	*1937.*	*1938.*
Posted—Inland ...	1,563,736	1,560,208	1,829,904
External ...	1,280,766	1,779,388	1,855,064
Received—External ...	2,777,788	4,999,982	4,394,338
Totals	5,622,290	8,339,578	8,079,306

Money orders and postal orders issued during the year amounted to £135,014, compared with £107,900 in 1937, and paid orders increased from £48,300 to £60,234. The number of cash on delivery parcels increased from 14,200 to 16,898 and the total amount of trade charges collected and remitted to the senders rose from £27,000 to £33,075.

There is a daily mail service between offices on the line of rail, while offices off the line of rail are served either by motor vehicle or by carriers at least once a week. The service to Barotseland is carried mainly by barge on the Zambesi River. Mails are exchanged with Southern Rhodesia by rail daily and there is also an air service twice a week from Lusaka to Salisbury. Nyasaland has a road service from Fort Jameson twice a week and an air service for first-class mail from Lusaka via Salisbury also twice a week. Other mails are carried by rail via Salisbury and Beira. To South Africa there is a service by rail three times a week and by air twice a week via Beira as part of the Empire Air Mail Scheme. There is also a surcharged air service once a week by South African Airways.

Mails to Great Britain and the majority of places in the Empire are despatched by air under the Empire Air Mail Scheme three times a week, twice via Beira and once by the overland route from Lusaka to Kisumu. The surface route is used for parcels and printed papers. Parcel mails from Great Britain are also received via Lobito Bay.

Telegraphs.

The main telegraph and trunk telephone route follows the track of the railway line from the Victoria Falls Bridge to Ndola. From Ndola there are separate branches to Luanshya and to Nkana and Mufulira. The telegraph line, but not the telephones, is continued from Ndola to the Congo Border. Fort Jameson is connected with the Nyasaland telegraph system and Kasama and Abercorn with the Tanganyika system.

There was an increase in telegraph traffic handled during the year and the gross receipts were £12,900 as compared with £12,500 in 1937. The following are details of the last three years: —

	1936.	*1937.*	*1938.*
	£	£	£
Paid telegrams	45,088	55,400	60,022
Official telegrams ...	16,256	17,300	19,925
Net revenue	7,593	10,900	10,016

Telephones.

There are automatic telephone exchanges at Lusaka, Broken Hill, Livingstone, Luanshya and Ndola and a manual exchange at Mazabuka. The Rhokana Corporation are licensed to extend their private system as a public system to the township of Kitwe. Private exchanges are operated under licence by the Roan Antelope Copper Mine at Luanshya, by the Mufulira Mine at Mufulira and by the Nchanga Copper Mines Ltd. at Chingola. All these exchanges, including the private ones, have facilities for trunk communication. Call offices provide trunk communication during certain periods of the day and are established at the majority of Post Offices on the main route. Telephone business showed considerable expansion during the year.

Telephone Revenue.

	1936.	*1937.*	*1938.*
	£	£	£
Exchange rentals	4,326	4,500	4,910
Call Office and trunk fees ...	3,758	4,500	5,301
Miscellaneous...	151	150	163
Totals	£8,235	£9,150	£10,374

Radio Communication.

Internal point to point communication for public traffic is provided between Broken Hill, Abercorn, Fort Jameson, Mpika and Mongu. Broken Hill, which is on the line of rail, acts as the transmitting station between the land lines and radio stations. Communication is principally made on short wave lengths. The Broken Hill station also communicates with stations in Tanganyika, Southern Rhodesia and the Union of South Africa.

Aeronautical Services.

The stations at Mpika and Broken Hill are equipped with transmitters for communication with aircraft in flight and watch is kept in connection with the Empire Air services. There is also a short-wave station at Livingstone, which is used for aeronautical services in connection with the South African Airways flights between South Africa and Kisumu.

Civil Aviation.

The following air routes have been established in Northern Rhodesia and pilots of all aircraft, especially those which are single-engined, are advised in the interests of safety to follow them when flying between the places mentioned:—

(1) Livingstone to Balovale (or intermediate stations) via Sesheke, Njoko, Sioma, Senanga, and Mongu.

(2) Livingstone to Ndola (or intermediate stations) via Kalomo, Choma, Mazabuka, Lusaka, Chisamba, Broken Hill, and Kapiri Mposhi.

(3) Lusaka to Fort Jameson via Nyangwena, Rufunsa, Nyimba, and Sasare.

(4) Broken Hill to Mbeya (or intermediate stations) via Mtuga, Ndabala, Kanona (for Serenje), Kalonje, Mpika, Shiwa Ngandu, Chinsali, Isoka, and Mwenimpanza.

(5) Broken Hill to Abercorn via Mtuga, Ndabala, Kanona, Kalonje, Mpika, Kasama, and Rosa.

(6) Ndola to Mbeya (or intermediate stations) via Fwaka, Mofu, Kasama, Munuka, and Mwenimpanza.

(7) Ndola to Abercorn via Fwaka, Mofu, Kasama, and Rosa.

(8) Abercorn to any line of rail station, via Rosa, Kasama, Mofu, Fwaka, Ndola, and then to the required destination via the railway line.

(9) Lusaka to Mongu, via Mumbwa, Kafue Hook, Nkeyema, Mankoya, Singala, and Loma.

Aerodromes and landing grounds are maintained in good condition in the more settled areas, but it is not always possible to maintain distant emergency landing grounds to the same extent, although every endeavour is made to do so.

Airways.

With the opening of the Empire Air Mail route in 1937, the Wilson Airways of Nairobi operated a service between Lusaka and Kisumu twice a week. The Rhodesian and Nyasaland Airways Limited also operated a service on the Empire Air Mail route between Lusaka and Beira twice a week, making a complete land link between Kisumu and Beira with the Imperial

Airways Flying Boat Service to Durban and Southampton. South African Airways operated a weekly service between Johannesburg via Lusaka to Kisumu. Regie Air Afrique operated a weekly service between Elizabethville and Madagascar via Broken Hill.

The Flying Club (founded in May, 1935) has its headquarters at Lusaka, and branches are maintained at Livingstone, Broken Hill, Nkana and Ndola. The club possess one aircraft, a Tiger Moth.

XII.—BANKING, CURRENCY AND WEIGHTS AND MEASURES.

The Standard Bank of South Africa, Limited, and Barclays Bank (Dominion, Colonial and Overseas) operate in the Territory, with branches or agencies at the more important centres. The total deposits at those banks at 31st December, 1938, amounted to £1,390,713, as compared with £1,170,016 at the end of the previous year.

The Post Office Savings Bank deposits amounted to £47,829 at 31st December, 1938, as compared with £41,039 at the end of the previous year. There is no Land or Agricultural Bank in the Territory.

The Bank Notes and Coinage Ordinance, 1931, Bank Notes and Coinage (Amendment) Ordinance, 1934, and Proclamation No. 1 of 1935 prescribe as legal tender throughout the Territory (*a*) Bank of England notes, (*b*) bank-notes issued by the Standard Bank of South Africa, Limited, and Barclays Bank (Dominion, Colonial and Overseas) at their offices at Salisbury, Southern Rhodesia, (*c*) the standard coinage in use in England, (*d*) silver coinage of Southern Rhodesia for any amount not exceeding £2 sterling value, and (*e*) cupro-nickel coinage of Southern Rhodesia for any amount not exceeding one shilling in value. The enactment of the first Ordinance on the 12th October, 1931, marked the departure of Northern Rhodesia from the gold standard.

The English standards of weights and measures are in force.

XIII.—PUBLIC WORKS.

The following buildings were under construction during the year:—

Lusaka:

4 houses for Junior Officers.
1 house for Head of Department.
Extensions to Post Office, Lusaka.
2 Wireless Stations, Lusaka.

Kasama:
2 Wireless Stations.
Post Office.

Abercorn:
1 African Hospital.

Fort Jameson:
1 African Hospital.

Ndola:
1 Wireless Station.

Luanshya:
Police Quarters.
Extension to School.
Police Officer's house.

Nkana (*Kitwe*).—Nine bungalows and two sets of single quarters were approaching completion at the end of the year. The houses were of the types designed by the Engineering Department of Rhokana Corporation and built by contract under its supervision. Post Office and Police Quarters were also built under contract.

Mufulira.—By a similar arrangement eight houses of these types were constructed for Government at Mufulira, and the following by contract:

1 European School.
Police Offices.
Government Offices.
Post Office.
Police Quarters.

Kafue Bridge.—This crosses the Kafue River on the new road from Nkana to Mufulira. It provides a single track width of 10 feet and crosses the river on two shore spans of 50 feet and central spans of 100 feet. The steel structure of each span consists of two N-type Lattice Girder spaced at 12 feet centres connected by cross joists, on which rests a reinforced concrete deck 9 inches thick. It is designed to carry Crown Agents Heavy Loading. The piers and abutments were all founded on rock and constructed in reinforced concrete.

Hangar: Lusaka.—The need for Hangar accommodation at the air port at Lusaka was met on the advice of the Air Ministry by transferring an existing hangar from Broken Hill and re-erecting it there with an extra bay. The leading dimensions now are 120 feet by 125 feet 6 inches by 30 feet in height, and a concrete floor and apron have been provided.

XIV.—JUSTICE, POLICE AND PRISONS.

Justice.

Justice is administered by the High Court of Northern Rhodesia and by the Subordinate Courts, subject to appeal to and review by the High Court.

In March, 1938, an additional Judge was appointed to the Territory and was stationed at Ndola. This has considerably facilitated the administration of justice and the legal practitioners and public of the copper belt have made full use of the added facilities which were provided by the full extension of the jurisdiction of the Ndola District Registry.

During the year the High Court dealt with 153 civil matters as against 140 in the preceding year, and heard seven actions and three appeals. Five petitions in bankruptcy were presented. Circuit Sessions were held at various periods during the year at Ndola (once before the arrival of the Puisne Judge), Lusaka (three times), Broken Hill (twice), Mazabuka (three times) and once each at Mongu, Mankoya, Fort Rosebery and Serenje. Fifty-five criminal cases came before the Court, exclusive of reviews of judgments in the lower Courts, which numbered 149. Of these, 112 convictions involving one or more persons were approved, 21 quashed and 16 altered.

Native Courts.

A Native Courts Ordinance was passed in 1936 and applies to the whole Territory, except Barotseland, which has a Special Ordinance. This Ordinance is more detailed than the former one, and deals with many matters which were previously provided for by rules. Like the Native Authority Ordinance, it emphasizes the need for proceeding in accordance with native law and custom. The Courts are constituted according to custom and are then recognized by the Governor who lays down their powers and jurisdiction by Warrant. Provision is made for the institution of Native Court prisons and for Native Courts of Appeal and also for appeals to the Courts of District Officers and the High Court.

The Barotse Native Courts Ordinance is similar, and was enacted in accordance with an agreement entered into between the Crown and the Paramount Chief. The construction and jurisdiction of the Courts are as laid down in the agreement. In criminal cases there is an appeal to the Provincial Commissioner from the Native Court of Appeal for Barotseland, but in civil cases the appeal lies to the High Court only.

The general conduct of Native Courts continues to be satisfactory. Excluding the Barotse Province, 7,081 criminal cases and 7,899 civil cases were heard during the year by these Courts.

Police.

The Police prosecuted a total number of 8,369 cases during the year 1938, an increase of 1,311 cases over the figures for 1937. There was an increase of 14 convictions against Europeans under the Penal Code, and an increase of 186 convictions under local laws. Convictions against Natives under the Penal Code showed an increase of 499 and under local laws an increase of 885. The following is a list of persons convicted of the more serious offences during 1938:—

Crime.	*Europeans.*	*Natives.*	*Totals.*	
			1938.	*1937.*
Affray	—	43	43	22
Arson	2	12	14	7
Assault, common	54	304	358	201
Assault, O.A.B.H.	17	211	228	202
Assault on police	1	5	6	7
Burglary	—	94	94	72
Extortion	—	—	—	—
Forgery	5	31	36	30
Fraud	—	—	—	—
Housebreaking	—	129	129	116
Indecent assault on a female	1	15	16	13
Indecently insulting a female	—	6	6	3
Manslaughter...	—	24	24	12
Murder	1	7	8	20
Attempted murder	—	4	4	8
Obtaining goods by false pretences.	6	18	24	18
Perjury	—	2	2	5
Rape and attempted rape ...	—	11	11	5
Receiving	3	19	22	40
Robbery	—	4	4	3
Stealing and theft, all forms	11	907	918	902
Unlawful wounding	—	12	12	16
Uttering	5	23	28	24

These figures include only cases taken into court by the police and do not include cases heard by a Magistrate at stations where the police are not posted.

Prisons.

There are six central prisons in the territory, situated at Livingstone, Broken Hill, Kasama, Mongu, Fort Jameson and Lusaka. There are also 29 local prisons at each of the other Government stations.

Committals to all prisons during the year were as follows:—

Livingstone	257
Broken Hill	319
Fort Jameson	247
Kasama	95
Mongu	80
Lusaka	32
All local prisons	4,762
Total	5,792

The daily average of prisoners for all prisons was 923. The daily average of sick was 50. There were four executions during the year and 13 deaths from natural causes.

XV.—LEGISLATION.

During the year sessions of the Legislative Council were held in May and December. Of the 53 Ordinances enacted, 37 were amendments to the existing law.

The more important Ordinances were:—

The Money-Lenders Ordinance (No. 11 of 1938).
The Debtors Ordinance (No. 12 of 1938).
The Northern Rhodesia Regiment European Reserve Ordinance (No. 20 of 1938).
The Imperial Acts Extension (Amendment) Ordinance (No. 32 of 1938).
The Rhodesian Court of Appeal Ordinance (No. 35 of 1938).
The Native Tax Ordinance (No. 36 of 1938).
The Estate Duty Ordinance (No. 51 of 1938).
The Inquests Ordinance (No. 52 of 1938).

The Money-Lenders Ordinance brings the law of Northern Rhodesia into line with the present law of England, subject to modifications in terminology necessitated by the procedure and conditions obtaining in the Territory.

The Debtors Ordinance reproduces the substantive provisions of the Debtors Acts of 1869 and 1878, with slight amendments to meet local conditions and a new provision limiting imprisonment to a term not exceeding six weeks.

The Northern Rhodesia Regiment European Reserve Ordinance establishes a Reserve of officers, warrant officers and non-commissioned officers for the Northern Rhodesia Regiment. Reservists, who must be European British subjects resident in the Territory, may be called up for active service with the Regiment in operations against enemy forces or in aiding the civil authority in the protection of life and property or suppression of internal disorder or in any emergency. Reservists may also be called up by the Governor for training for a period not exceeding one month in each year.

The Imperial Acts Extension (Amendment) Ordinance provides that the Matrimonial Causes Act, 1923, which was repealed in England by the Supreme Court of Judicature (Consolidation) Act, 1925, shall cease to apply to Northern Rhodesia, and that Part VIII of the Supreme Court of Judicature (Consolidation) Act, 1925, which relates to matrimonial causes, and the Matrimonial Causes Act, 1937, shall apply in the Territory.

The Rhodesian Court of Appeal Ordinance establishes conjointly with the Colony of Southern Rhodesia a Court of Appeal for the purpose of hearing and determining appeals from the High Courts of Southern and Northern Rhodesia. The High Court Judges of the two territories are appointed Judges of the Court of Appeal, and the President is to be the Chief Justice of Southern Rhodesia or the Judge for the time being acting for him. Appeals from the High Court of Northern Rhodesia lie in both civil and criminal matters.

The Native Tax Ordinance consolidates the law relating to native tax and gives effect to certain recommendations made in the Report on Native Taxation, 1938. The chief of these are the empowering of Collectors and other authorised persons to demand the production of tax receipts, the appointment by District Commissioners of places for the payment of tax and the increase of the tax payable by one shilling in default of payment by the 31st day of December in the year in which it became due and payable, provided that such liability shall not accrue if a Native can show that such default was due to causes beyond his own control.

The Estate Duty Ordinance provides for the imposition of a duty on the estates of deceased persons, except in the case of estates the value of which does not exceed £2,000. No grant of representation to the deceased may be made unless a certificate of the Estate Duty Commissioners is produced to the effect that a proper estate duty affidavit as to the estate of the deceased has been made and delivered to the Commissioners, or that the Commissioners permit the grant to be made.

The Inquests Ordinance replaces the brief provisions of the Criminal Procedure Code dealing with the holding of inquests. It is now provided that in certain circumstances the finding of a magistrate holding an inquest may be reversed or varied by the High Court.

XVI.—PUBLIC FINANCE AND TAXATION.

The revenue and expenditure for the past nine years have been:—

		Expenditure.		
Year.	*Revenue.*	*Recurrent.*	*Extra-ordinary.*	*Total Expenditure.*
	£	£	£	£
1930–31 ...	830,254	668,083	36,903	704,986
1931–32 ...	856,376	793,798	26,258	820,056
1932 ...	649,538	777,290	13,216	790,506
1933 ...	718,283	773,985	4,894	778,879
1934 ...	693,337	710,774	2,129	712,903
1935 ...	833,484	780,930	25,499	806,429
1936 ...	863,255	836,174	51,243	887,417
1937 ...	981,894	895,089	14,163	909,252
1938 ...	1,593,504	1,007,480	410,296	1,417,776

These figures exclude repayments to the Imperial Exchequer of grants-in-aid received in 1924-5 and 1925-6, and the loan of £240,000 received from the Colonial Development Fund and lent to the Rhokana Corporation in 1934.

Loan expenditure on capital development amounted to:—

£566,810 at 31st March, 1931.
£1,216,681 at 31st March, 1932.
£1,475,130 at 31st December, 1932.
£1,821,123 at 31st December, 1933.
£1,991,387 at 31st December, 1934.
£2,159,826 at 31st December, 1935.
£2,190,402 at 31st December, 1936.
£2,211,112 at 31st December, 1937.
£2,221,844 at 31st December, 1938.

The public debt consists of £1,250,000 5 per cent. inscribed stock 1950-70 issued in 1932 and £1,097,000 3½ per cent. inscribed stock 1955-65 issued in 1933.

The assets of the territory at the 31st December, 1938, consisted of:—

	£
Cash	453,717
Investments	383,624
Advances pending the receipt of grants from Beit Railway Trust.	2,092
Sundry debtors	70,960
Total	£910,393

The liabilities were:—

	£
Post Office Savings Bank	46,247
Native Reserves Fund	15,614
Sundry creditors	134,978
Northern Rhodesia 3½ per cent. Loan, 1955–65, unexpended balance.	24,130
Seigniorage Reserve	29,191
Reserve Fund	300,000
Excess of assets over liabilities	360,233
Total	£910,393

The main headings of taxation and yields during 1938 were as follows:—

	£
Licences	60,888
Native Tax	133,625
Customs and Excise Duties...	414,120
Income Tax	757,200

Licence fees are principally derived from trading, vehicles, arms, shooting of game, sale of liquor, and prospecting for minerals.

The annual Native tax rates and the yields in 1938 are as follows:—

	£
Barotse Province (7s. 6d.)	25,351
Other Provinces (from 7s. 6d. to 15s. according to district).	108,274
Total	£133,625

All male Natives are liable to pay one tax annually if they have reached 18 years of age and are not indigent by reason of age, disease or such other cause as the District Officer may accept. Women and children are not liable and there is no tax on additional huts or on plural wives. It is not the practice to enforce payment on local Natives who have been absent from the Territory for periods exceeding 12 months if they are able to produce a tax receipt from an adjoining territory for that period and if they have not cultivated lands locally. The persons liable for tax are recorded in registers compiled under the supervision of District Officers. Collection is made direct by Government officers and not by Native Authorities. Recovery for default is by distress through the Courts. The tax may be accepted in grain or stock or other produce at the discretion of the District Officer, but the practice is rare. Thirty per cent. of the Barotse tax is paid to the Native Treasury and applied directly to expenditure on native interests in the Barotse area. Elsewhere 10 per cent. of the tax paid is paid into the Native Treasury of the area for direct expenditure on Native interests.

During the year a Native Taxation Committee was appointed to examine the system of native taxation. The Committee issued a valuable report, having taken evidence from Europeans, both official and unofficial, and Africans throughout the territory. The Committee was unable to recommend the introduction of a graded tax based on individual capacity to pay, as accurate assessment would entail an expense out of all proportion to the revenue involved. The Committee considered that the following general principles should apply to the direct taxation of Africans:—

(*a*) The tax should be readily understood and accepted by the people liable to it.

(*b*) It should be of such amount as can be found without undue hardship by the overwhelming majority of those who have to pay it.

(*c*) It should be simple and economical to collect and capable of effective enforcement.

The Committee's main recommendation was the retention of a poll tax varying in different areas. The rates in existence were carefully examined and rates varying from 6s. in backward and labour-supplying areas to 15s. in the copper-mining districts were adopted and introduced from 1st January, 1939.

APPENDIX.

PUBLICATIONS OF GENERAL INTEREST RELATING TO NORTHERN RHODESIA.

Expedition to the Zambesi and Its Discovery of Lakes Shirwa and Nyasa. By D. and C. Livingstone. (John Murray, London. 1865. 21s.)

The Lands of the Cazembe. Translation of Dr. Lacerda's diaries and information about Portuguese expeditions. By Sir Richard Burton. Published by the Royal Geographical Society. (John Murray, London. 1873.)

Livingstone and the Exploration of Central Africa. By Sir H. H. Johnston. (Phillip & Son, London. 1894. 4s. 6d.)

On the Threshold of Central Africa. By F. Coillard. (Hodder & Stoughton, London. 1897. 15s.) Contains an account of the social and political status of the Natives.

Exploration and Hunting in Central Africa. By A. St. H. Gibbons. (Methuen & Co. London. 1898. 15s.) Contains a full, careful description of the Upper Zambesi, and an account of the subjects of Chief Lewanika.

Au Pays des Ba-Rotsi, Haut-Zambesi. By A. Bertrand. (Hachette, Paris. 1898. English Edition, Unwin. 16s.)

In remotest Barotseland. By Colonel C. Harding. (Hurst & Blackett, London. 1905. 10s. 6d.)

The Great Plateau of Northern Rhodesia. By G. Gouldsbury and H. Sheane. (Arnold, London. 1911. 16s.)

The Ila Speaking Peoples of Northern Rhodesia. By Rev. E. W. Smith and Captain A. M. Dale. (MacMillan & Co., London. 1920. 2 vols. 50s.)

In Witch-bound Africa. By F. H. Melland. (Seeley, Service, London. 1923. 21s.)

The Making of Rhodesia. By H. Marshall Hole. (MacMillan & Co., London. 1926. 18s.)

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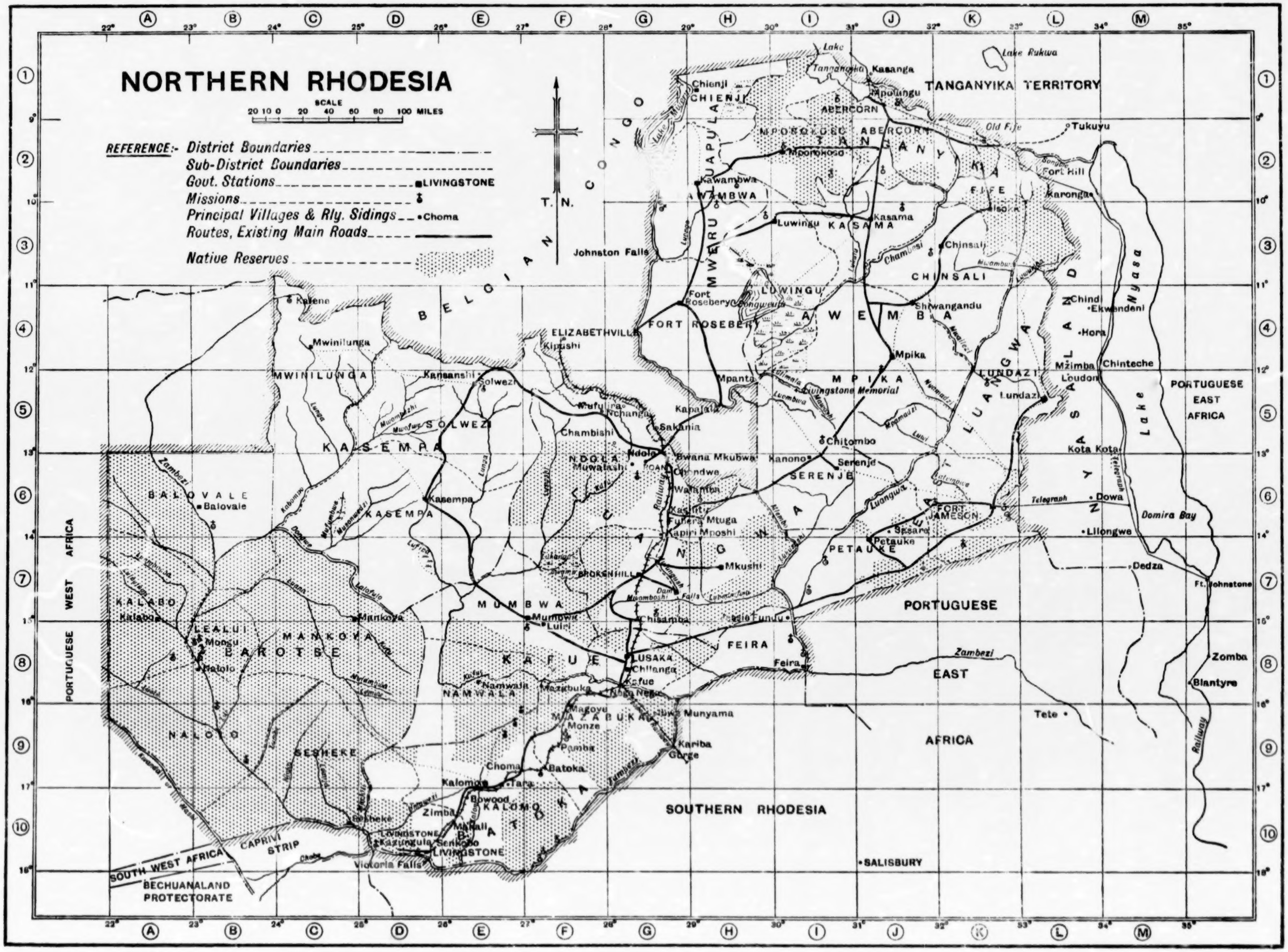
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Railway
22° 23° 24° 25° 26° 27° 28° 29° 30° 31° 32° 33° 34° 35°
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